

PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco CA 94102-3298



Pacific Gas & Electric Company
ELC (Corp ID 39)
Status of Advice Letter 6378E
As of December 17, 2021

Subject: CA Flats Solar 130, LLC Electric Wire Crossing PG&E's 500KV Exclusive Electric Easements - Request for Approval Under Public Utilities Code Section 851, pursuant to General Order 173

Division Assigned: Energy

Date Filed: 10-22-2021

Date to Calendar: 10-27-2021

Authorizing Documents: None

| | |
|------------------------|-------------------|
| Disposition: | Accepted |
| Effective Date: | 12-16-2021 |

Resolution Required: No

Resolution Number: None

Commission Meeting Date: None

CPUC Contact Information:

edtariffunit@cpuc.ca.gov

AL Certificate Contact Information:

Annie Ho

415-973-8794

PGETariffs@pge.com

PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco CA 94102-3298



To: Energy Company Filing Advice Letter

From: Energy Division PAL Coordinator

Subject: Your Advice Letter Filing

The Energy Division of the California Public Utilities Commission has processed your recent Advice Letter (AL) filing and is returning an AL status certificate for your records.

The AL status certificate indicates:

- Advice Letter Number
- Name of Filer
- CPUC Corporate ID number of Filer
- Subject of Filing
- Date Filed
- Disposition of Filing (Accepted, Rejected, Withdrawn, etc.)
- Effective Date of Filing
- Other Miscellaneous Information (e.g., Resolution, if applicable, etc.)

The Energy Division has made no changes to your copy of the Advice Letter Filing; please review your Advice Letter Filing with the information contained in the AL status certificate, and update your Advice Letter and tariff records accordingly.

All inquiries to the California Public Utilities Commission on the status of your Advice Letter Filing will be answered by Energy Division staff based on the information contained in the Energy Division's PAL database from which the AL status certificate is generated. If you have any questions on this matter please contact the:

Energy Division's Tariff Unit by e-mail to
edtariffunit@cpuc.ca.gov



October 22, 2021

Advice 6378-E

(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

Subject: CA Flats Solar 130, LLC Electric Wire Crossing PG&E's 500KV Exclusive Electric Easements - Request for Approval Under Public Utilities Code Section 851, pursuant to General Order 173

Purpose

Pacific Gas and Electric Company (PG&E) requests Public Utilities Commission (Commission) approval under Public Utilities Code Section 851 and General Order 173 for PG&E to enter into a Consent to Common Use Agreement (Agreement) with CA Flats Solar 130, a Delaware limited liability company (CA Flats) for underground facilities for their Solar Battery Storage Project (Project). The Agreement is included as Attachment 1.

The Agreement grants PG&E's consent for CA Flats' existing underground conduits to include electrical power lines and two electrical vaults (Facilities) that were installed in 2015 and cross PG&E's 192.5 foot wide exclusive easement. The easement is on a parcel of land leased by CA Flats and owned by The Hearst Corporation (Owner) located in the City of Parkland, County of Monterey, Assessor's Parcel Numbers 424-181-014-000 and 424-181-015-000 (Property). The total acreage of CA Flats' crossing within PG&E's easement is 0.09 acres and shown in Attachment 1, Exhibit "A".

PG&E has reviewed the crossing, which does not interfere with PG&E's operations or PG&E's ability to provide safe and reliable utility service to its customers. In addition, this Project is in the public interest because it is operationally necessary to mitigate CAISO anticipated extraordinary weather events that may trigger grid supply constraints and transmission service interruptions.

Background

PG&E acquired rights for its 500kV electric transmission line on the Property by virtue of an easement deed dated January 30th, 1969 and recorded as Instrument No. G19832, Reel 616, Page 660 in Monterey County records (Easement). A copy of the Easement is included as Attachment 3.

The terms of the Easement prevent Owner from granting any other easement on, under or over PG&E's exclusive easement without the written consent of PG&E.

In 2015, the predecessor Company to CA Flats (Solar Energy) installed Facilities in the Easement without receiving proper approval from PG&E. These Facilities did not receive Section 851 authorization at the time of installation. In October of 2020, CA Flats contacted PG&E about their Project that would require CA Flats to connect their substation to a 60MW battery storage system within their existing Facilities. Upon reviewing the Project, PG&E became aware of CA Flats' existing Facilities within the Easement and informed CA Flats of the requirement to file a Section 851 Advice Letter with the Commission for both the existing Facilities and the battery storage system.

On May 11, 2021, PG&E filed Advice Letter 6192-E with the Commission, seeking Section 851 approval for the 60MW battery storage system. The Section 851 request was approved by the Commission on June 10, 2021. In that Advice Letter 6192-E, PG&E also explained that it would be submitting this subsequent request for Section 851 approval of the existing Facilities once the parties were able to complete a consent agreement for the Facilities. On August 25, 2021, PG&E and CA Flats finalized the Agreement, which is conditioned on CPUC approval under Section 851.

PG&E has reviewed the crossings and concluded that they do not interfere with the operation and maintenance of PG&E's existing overhead facilities. In fact, the Facilities are operationally necessary to mitigate CAISO anticipated extraordinary weather events that may trigger grid supply constraints and transmission service interruptions and are thus in the public interest. For all of the above reasons, PG&E request that the Commission approve this Section 851 request to permit a third-party use within PG&E's exclusive electric transmission easement.

Tribal Lands Policy

On December 5, 2019, the Commission adopted a policy titled, "Investor-Owned Utility Real Property – Land Disposition - First Right of Refusal for Disposition of Real Property Within the Ancestral Territories of California Native American Tribes" (Policy). The Policy directs investor-owned utilities to (1) notify the appropriate local Native American Tribes of any proposed dispositions of utility-owned real property that are subject to Section 851 and (2) to allow 90 days for the Tribes to respond as to their interest in purchasing the subject real property.

Resolution E-5076, effective January 14, 2021, adopted Guidelines to Implement the CPUC Tribal Land Policy (Guidelines). Section 1.3.d of the Guidelines states that "disposition" means the transfer, sale, donation, or disposition by any other means of a fee interest in real property. Therefore, the Consent to Common Use Agreement that is the subject of this Advice Letter is not covered by the Policy.

Other Information

In accordance with General Order 173, Rule 4, PG&E provides the following information related to the proposed transaction:

(a) Identity and Addresses of All Parties to the Proposed Transaction:

| | |
|----------------------------------|---------------------------------|
| Pacific Gas and Electric Company | CA Flats Solar 130, LLC |
| Steven Frank | Saurabh Mishra |
| Law Department | Project Manager |
| P.O. Box 7442 | 8800 N Gainey Center Drive #25 |
| San Francisco, CA 94120 | Scottsdale, AZ 85258 |
| Telephone: (415) 973-6976 | Telephone: (615) 482-9183 |
| Facsimile: (415) 973-5520 | Email: smishra@arevonenergy.com |
| Email: steven.frank@pge.com | |

(b) Complete Description of the Property Including Present Location, Condition and Use:

The property is located on Assessor's Parcel Numbers 424-181-014-000 and 424-181-015-000 in Monterey County, Section 2, Township 24, South, Range 15 East of the Mount Diablo Base and Meridian. The property is undeveloped, zoned as agriculture, and is currently used for grazing and solar farm.

(c) Intended Use of the Property:

Intended use of the property will not change from its existing use.

(d) Complete Description of Financial Terms of the Proposed Transaction:

CA Flats has paid a one-time fee of \$1,000 which is an administrative fee for the preparation of the Agreement.

(e) Description of How Financial Proceeds of the Transaction Will Be Distributed:

The one time administrative fee for preparing the Agreement will be utilized by PG&E as miscellaneous/other revenue.

(f) Statement on the Impact of the Transaction on Ratebase and Any Effect on the Ability of the Utility to Serve Customers and the Public:

There is no impact to PG&E's rate base nor will granting the Agreement affect PG&E's ability to provide reliable service to its customers and the public at large.

(g) The Original Cost, Present Book Value, and Present Fair Market Value for Sales of Real Property and Depreciable Assets, and a Detailed Description of How the Fair Market Value Was Determined (e.g., Appraisal):

Not applicable.

(h) The Fair Market Rental Value for Leases of Real Property, and a Detailed Description of How the Fair Market Rental Value Was Determined:

Not applicable.

(i) The Fair Market Value of the Easement or Right-of-Way, and a Detailed Description of How the Fair Market Value Was Determined:

Not applicable.

(j) A Complete Description of any Recent Past (Within the Prior Two Years) or Anticipated Future Transactions that May Appear To Be Related to the Present Transaction:

Section 851 Advice Letter 6192-E was submitted on May 11, 2021 for the 60MW battery storage system referenced in the Project. The advice letter was approved by the Commission on June 10, 2021. There are no future transactions anticipated by PG&E that are related to the present transactions.

(k) Sufficient Information and Documentation (Including Environmental Information) to Show that All of Eligibility Criteria Set Forth in Rule 3 of General Order 173 are Satisfied:

PG&E has provided information in this Advice Letter to satisfy the eligibility criteria under General Order 173 in that:

- The activity proposed in the transaction will not require environmental review by the CPUC as a Lead Agency;
- The transaction will not have an adverse effect on the public interest or on the ability of PG&E to provide safe and reliable service to its customers at reasonable rates;
- The transaction will not materially impact the rate base of PG&E; and
- The transaction does not warrant a more comprehensive review that would be provided through a formal Section 851 application.

(l) Additional Information to Assist in the Review of the Advice Letter:

PG&E does not believe that any additional information is necessary for the review of this Advice Letter.

(m) Environmental Information

Pursuant to General Order 173, the Advice Letter program applies to proposed transactions that will not require environmental review by the CPUC as a lead agency under the California Environmental Quality Act ("CEQA") because another public agency, acting as the Lead Agency under CEQA, has completed environmental review of the project, and the Commission is required to perform environmental review of the project only as a Responsible Agency under CEQA.

For this Advice Letter, Monterey County has completed the environmental review as a Lead Agency.

- a. *The name, address, and phone number of the Lead Agency, the type of CEQA document that was prepared (Environmental Impact Report, Negative Declaration, Mitigated Negative Declaration), the date on which the Lead Agency approved the CEQA document, the date on which a Notice of Determination was filed.*

| | |
|---------------------------------------|---|
| Lead Agency | Monterey County Resource Management Agency Planning Department 168 W. Alisal St., 2nd Floor Salinas, CA 93901 Attn: Delinda Robinson, Senior Planner Telephone: 831-755-5198 |
| Type of CEQA Document Prepared | Environmental Impact Report is included as Attachment 3. Addendum to the Environmental Impact Report is included as Attachment 4. |
| Date Approved | Environmental Impact Report certified February 10, 2015. Addendum to the Environmental Impact Report approved on June 16, 2020. |
| Date of Final EIR and Addendum | Environmental Impact Report publication date is December 2014. The Board of Supervisors Staff Report Package included in the Addendum to the Environmental Impact Report was published on June 16, 2020. |

| | |
|---|--|
| Date Notice of Determination Filed | Notice of Determination filed on February 11, 2021 and included as Attachment 5. |
|---|--|

- b. *A copy of all CEQA documents prepared by or for the Lead Agency regarding the project and the Lead Agency's resolution or other document approving the CEQA documents.*

See attachments 3 through 5.

- c. *A list of section and page numbers for the environmental impacts, mitigation measures, and findings in the prior CEQA documents that relate to the approval sought from the Commission.*

The Addendum to the Environmental Impact Report (Attachment 4) describes the work included in this advice letter as shown in Section 2 (Scope and Purpose of this Addendum) at page 2, under "Connection to the Existing Transmission System."

A discussion of the environmental impacts associated with the approved project can be found in Section IV of the Environmental Impact Report (Attachment 3) and the analysis and checklist included in the Addendum to the Environmental Impact Report (Attachment 4).

- d. *An explanation of any aspect of the project or its environmental setting which has changed since the issuance of the prior CEQA document.*

The environmental setting described in the CEQA document prepared by Monterey County for this project has not changed since the issuance of the Notice of Determination.

- e. *A statement of whether the project will require approval by additional public agencies other than the Commission and the Lead Agency, and, if so, the name and address of each agency and the type of approval required.*

PG&E is not aware of other approval requirements by additional public agencies.

Protests

*****Due to the COVID-19 pandemic, PG&E is currently unable to receive protests or comments to this advice letter via U.S. mail or fax. Please submit protests or comments to this advice letter to EDTariffUnit@cpuc.ca.gov and PGETariffs@pge.com*****

Anyone wishing to protest this submittal may do so by letter sent via U.S. mail, facsimile or E-mail, no later than November 12, 2021, which is 21 days¹ after the date of this submittal. Protests must be submitted to:

CPUC Energy Division
ED Tariff Unit
505 Van Ness Avenue, 4th Floor
San Francisco, California 94102

Facsimile: (415) 703-2200
E-mail: EDTariffUnit@cpuc.ca.gov

Copies of protests also should be mailed to the attention of the Director, Energy Division, Room 4004, at the address shown above.

The protest shall also be sent to PG&E either via E-mail or U.S. mail (and by facsimile, if possible) at the address shown below on the same date it is mailed or delivered to the Commission:

Sidney Dietz
Director, Regulatory Relations
c/o Megan Lawson
Pacific Gas and Electric Company
77 Beale Street, Mail Code B13U
P.O. Box 770000
San Francisco, California 94177

Facsimile: (415) 973-3582
E-mail: PGETariffs@pge.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Section 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name, telephone number, postal address, and (where appropriate) e-mail address of the protestant; and statement that

¹ The 20-day protest period concludes on a holiday, therefore, PG&E is moving this date to the following business day.

the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Section 3.11).

Effective Date

Pursuant to General Order (GO) 96-B, Rule 5.2, this advice letter is submitted with a Tier 2 designation. PG&E requests that this **Tier 2** advice submittal become effective on regular notice, November 21, 2021 which is 30 calendar days after the date of submittal.

Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and/or via U.S. mail to parties shown on the attached list. Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter submittal can also be accessed electronically at: <http://www.pge.com/tariffs>.

_____/S/
Sidney Dietz
Director, Regulatory Relations

Attachment 1 – Consent to Common Use Agreement
Attachment 2 – Electric Transmission Easement
Attachment 3 – EIR
Attachment 4 – Addendum to the EIR
Attachment 5 – Notice of Determination

***** SERVICE LIST for Advice 6378-E *****
APPENDIX A

Jonathan Reiger
Legal Division
505 Van Ness Avenue
San Francisco, CA 94102
(415) 355-5596
jzr@cpuc.ca.gov

Mary Jo Borak
Energy Division
505 Van Ness Avenue
San Francisco, CA 94102
(415) 703-1333
bor@cpuc.ca.gov

Robert (Mark) Pocta
Public Advocates Office
505 Van Ness Avenue
San Francisco, CA 94102
(415) 703- 2871
robert.pocta@cpuc.ca.gov

Andrew Barnsdale
Energy Division
505 Van Ness Avenue
San Francisco, CA 94102
(415) 703-3221
bca@cpuc.ca.gov

*****AGENCIES*****

CA Flats Solar 130, LLC
Saurabh Mishra
8800 N Gainey Center Drive, #25
Scottsdale, AZ 85258
(615)- 482-9183
smishra@arevonenergy.com

Monterey County Housing and Community
Development
Anna V. Quenga, Senior Planner
1441 Schilling Place ~ South Building Second Floor
Salinas, CA 93901
(831) 755-5175 Direct
(831) 757-9516 Fax
Anna V. Quenga, Senior Planner
(831) 755-5175
QuengaAV@co.monterey.ca.us
www.co.monterey.ca.us/rma



ADVICE LETTER SUMMARY

ENERGY UTILITY



MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No.: Pacific Gas and Electric Company (ID U39 E)

Utility type:

- ELC GAS WATER
 PLC HEAT

Contact Person: Annie Ho

Phone #: (415) 973-8794

E-mail: PGETariffs@pge.com

E-mail Disposition Notice to: AMHP@pge.com

EXPLANATION OF UTILITY TYPE

ELC = Electric GAS = Gas WATER = Water
 PLC = Pipeline HEAT = Heat

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #: 6378-E

Tier Designation: 2

Subject of AL: CA Flats Solar 130, LLC Electric Wire Crossing PG&E's 500KV Exclusive Electric Easements - Request for Approval Under Public Utilities Code Section 851, pursuant to General Order 173

Keywords (choose from CPUC listing): Agreements, Section 851

AL Type: Monthly Quarterly Annual One-Time Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #:

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: No

Summarize differences between the AL and the prior withdrawn or rejected AL:

Confidential treatment requested? Yes No

If yes, specification of confidential information:

Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/ access to confidential information:

Resolution required? Yes No

Requested effective date: 11/21/21

No. of tariff sheets: N/A

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected:

Service affected and changes proposed¹: N/A

Pending advice letters that revise the same tariff sheets: N/A

¹Discuss in AL if more space is needed.

Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this submittal, unless otherwise authorized by the Commission, and shall be sent to:

CPUC, Energy Division
Attention: Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102
Email: EDTariffUnit@cpuc.ca.gov

Name: Sidney Bob Dietz II, c/o Megan Lawson
Title: Director, Regulatory Relations
Utility Name: Pacific Gas and Electric Company
Address: 77 Beale Street, Mail Code B13U
City: San Francisco, CA 94177
State: California Zip: 94177
Telephone (xxx) xxx-xxxx: (415)973-2093
Facsimile (xxx) xxx-xxxx: (415)973-3582
Email: PGETariffs@pge.com

Name:
Title:
Utility Name:
Address:
City:
State: District of Columbia Zip:
Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email:

Attachment 1

Consent to Common Use Agreement

ATTACHMENT 1

Consent to Common Use Agreement (Rev. 4/2015)

RECORDING REQUESTED BY AND RETURN TO:

PACIFIC GAS AND ELECTRIC COMPANY
245 Market Street, N10A, Room 1015
P.O. Box 770000
San Francisco, California 94177

Location: City/Uninc _____

Recording Fee \$ _____

Document Transfer Tax \$ _____

This is a conveyance where the consideration and Value is less than \$100.00 (R&T 11911).

Computed on Full Value of Property Conveyed, or

Computed on Full Value Less Liens & Encumbrances Remaining at Time of Sale

(SPACE ABOVE FOR RECORDER'S USE ONLY)

Exempt from the fee per GC 27388.1(a)(2); This document is subject to Documentary Transfer Tax

Signature of declarant or agent determining tax

LD#2224-15-XXXX

AGREEMENT

CONSENT TO COMMON USE AGREEMENT

THIS CONSENT TO COMMON USE AGREEMENT, hereinafter called

"Agreement", entered into this 25 day of August, 2021, by and between PACIFIC GAS AND ELECTRIC COMPANY, hereinafter called "PG&E", and CA Flats Solar 130, a Delaware limited liability company, hereinafter called "Tenant",

RECITALS

- A. PG&E is the owner in possession of certain rights of way and easements, hereinafter referred to as "PG&E's easement", described as follows:

That certain right of way and easement granted by the Hearst Corporation, a Delaware corporation to Pacific Gas and Electric Company filed for record August 8th, 1969 as Instrument No. G19832, Reel 616, Page 660, Monterey County Records (LD# 2223-15-0028)

B. Tenant has acquired certain lease premises for the construction and operation of a utility scale solar and battery project and associated facilities commonly known as the CA Flats North 130 Solar Project located in the vicinity of North Substation 92601 Turkey Flat Rd, County of Monterey, hereinafter referred to as "Tenant Lease Premises", described as follows:

Leasehold and easement interests as created by that certain unrecorded Solar Energy Land Lease and Easements Agreement dated December 23, 2015 by and between The Hearst Corporation, a Delaware corporation as Lessor, and CA Flats Solar 130, a Delaware limited liability company, by certain Memorandum of Lease and Easements recorded December 29, 2015 as Document Number 2015073709, County of Monterey, and that certain Memorandum of Lease and Easements recorded December 24, 2015, as Document Number 2015064687 County of San Luis Obispo, and as amended by that certain unrecorded First Amendment to Solar Energy Land Lease and Easements Agreement dated September 29, 2016, as disclosed by that certain First Amendment to Memorandum of Lease and Easements recorded September 30, 2016, as Document No. 2016057843, in the County Recorder's office of Monterey County, and as amended by that certain Second Amendment to Memorandum of Lease and Easements recorded November 27, 2018 as Instrument No. 2018053814, Monterey County Official Records, and further recorded December 5, 2018 as Instrument No. 2018050049, San Luis Obispo County Official Records as

the same may be amended, amended as restated, and/or subleased from time to time (collectively the "Site Lease").

C. The Tenant Lease Premises occupies a portion of PG&E's easement and is subject to PG&E's easement, which said portion is hereinafter designated "Area of Common Use" upon the print of Drawing labeled "Exhibit A", attached hereto and made a part hereof.

NOW, THEREFORE, PG&E and Tenant hereby mutually agree as follows:

1. PG&E hereby consents to the construction, reconstruction, maintenance or use by Tenant of a trench containing underground conduits to include electrical power lines and two electrical vaults, under, along and upon PG&E's easement in the Area of Common Use subject to PG&E's easement and right to use said Area of Common Use for all of the purposes for which PG&E's easement was acquired and to the terms and conditions herein contained. PG&E does not by this consent and shall not be deemed to subordinate its rights in the Area of Common Use to and use which tenant shall make of said area. This consent will be effective so long as the Site Lease described in Recital 2, as the same may be amended, remains in full force and effect.

2. Tenant acknowledges PG&E's title to PG&E's easement in said Area of Common Use and the priority of PG&E's title over the title of Tenant therein. PG&E has and reserves the right and easement to use, in common with Tenant Lease Premise, said Area of Common Use for all of the purposes for which PG&E's easement was acquired, without need for any further permit or permission from Tenant. Except in

emergencies, PG&E shall give reasonable notice to Tenant before performing any work on PG&E's facilities in said Area of Common Use.

3. Except as expressly set forth herein, this Agreement shall not in any way alter, modify or terminate any provision of PG&E's easement or the priority thereof over the title of Tenant in said Area of Common Use. Both Tenant and PG&E shall use said Area of Common Use in such manner as not to interfere unreasonably with the rights of the other. Nothing herein contained shall be construed as a release or waiver of any claim for compensation or damages which PG&E or tenant may now have or may hereafter acquire resulting from the construction of additional facilities or the alteration of existing facilities by either Tenant or PG&E in such a manner as to cause an unreasonable interference with the use of said Area of Common Use by the other party.

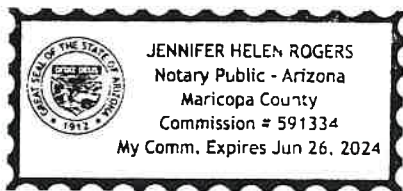
4. This Agreement shall inure to the benefit of and be binding upon the successors and assigns of both parties.

The parties have caused this Agreement to be executed by their respective duly authorized officials.

PACIFIC GAS AND ELECTRIC COMPANY

By

Shannon Koontz-Monis
Manager
Land Rights - South



Jennifer Helen Rogers
Notary Public

CA Flats Solar 130, LLC

By

Justin Johnson
Authorized Signatory

RANCHO CHOLAME
(T. 24 S., R.15 E. SEC. 2 M.D.B.&M.)

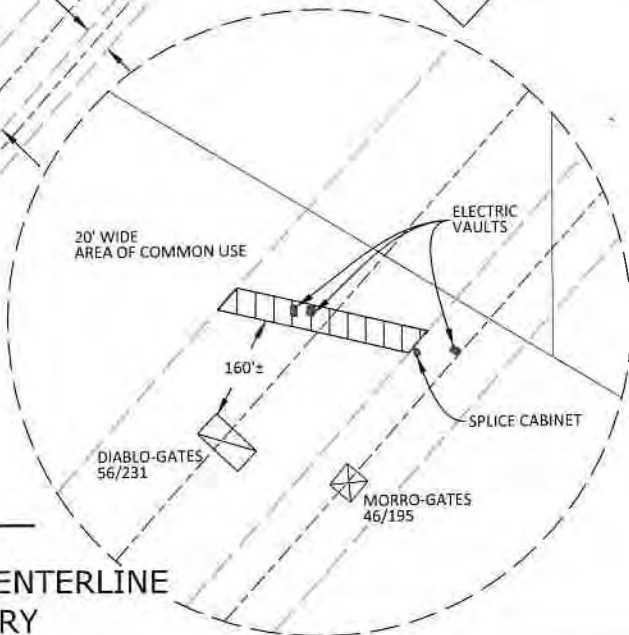
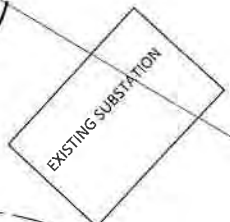
HEARST CORPORATION
APN: 424-181-015-000

HEARST CORPORATION
APN: 424-181-014-000

HEARST CORPORATION
APN:143-011-001-000

75ft PG&E EASEMENT
LD #2223-15-0021
NON-EXCLUSIVE

192.5ft PG&E EASEMENT
LD #2223-15-0028
EXCLUSIVE



LEGEND

- AREA OF COMMON USE
- EXISTING EASEMENT CENTERLINE
- APPROXIMATE BOUNDARY

AUTHORIZATION
74036450

BY
DR RSSG
CH ADSN
OK RSSG
DATE 4/15/2021

EXHIBIT "A"
CONSENT TO COMMON USE
**CALIFORNIA FLATS
BATTERY STORAGE**
PACIFIC GAS AND ELECTRIC COMPANY
San Francisco California



| | |
|--------------------|----------|
| JCN | COAST |
| AREA | MONTEREY |
| COUNTY | NTS |
| SCALE | |
| SHEET NO. | 1 OF 1 |
| DRAWING NUMBER | CHANGE |
| EXHIBIT "A" | |

Attachment 2

Electric Transmission Easement

ATTACHMENT 2

(NM)

ELECTRIC TRANSMISSION (Special) 3283r

REC 616 PAGE 660

2223-15-0028

069042205 001 520 1000

2223-15-0028

069042205 001 520 1000

Recording requested by
TITLE INSURANCE AND TRUST CO

5-10867 R
P.O. Box 810
San Luis Obispo, California 93401

Mail Tax Statements to:
Pacific Gas and Electric Company
245 Market Street
San Francisco, CA 94106

FOR RECORDER'S USE ONLY

G 19832

RECORDED AT REQUEST OF

Title Insurance and Trust Company

AUG 8 2 39 PM '69

OFFICE OF RECORDER
COUNTY OF MONTEREY
SALINAS, CALIFORNIA

069042205 001 520 1000
DOU. NO. 1927
OFFICIAL RECORDS
SAN LUIS OBISPO CO. CALIF.
COUNTY RECORDER

AUG 20 1969

| | |
|----------------|---|
| Register Sheet | ✓ |
| Card File | ✓ |
| Mapped (Date) | ✓ |

REC 616 PAGE 660

TIME 8:01 A.M.

COMPARED

\$24.20

TRANSFER TAX PAID
MONTEREY COUNTY

DOCUMENTARY TRANSFER TAX \$ 275

Signed—Party or Agent [Signature] Firm Name

UNINCORPORATED

DOCUMENTARY TRANSFER TAX \$

Signed—Party or Agent [Signature] Firm Name

G 19832

THE HEARST CORPORATION, a Delaware corporation,

hereinafter called first party, in consideration of value paid by PACIFIC GAS AND ELECTRIC COMPANY, a California corporation, hereinafter called second party, the receipt whereof is hereby acknowledged, hereby grants to second party those perpetual and exclusive easements and rights of way to construct, operate, maintain, repair, reconstruct, replace, and remove, at any time and from time to time, electric transmission lines, consisting of one or more lines of towers, poles, and/or other structures, wires, and cables, including ground wires, both overhead and underground, for the transmission of electric energy, and for communication purposes, and all necessary and proper foundations, footings, crossarms and other appliances and fixtures for use in connection with said towers, poles and/or other structures, wires and cables, together with a right of way, on, along and in all of the hereinafter described strip of those certain lands which are and the

situate in the County of San Luis Obispo/ County of Monterey, State of California, and are described as follows:

I. Lot 1 and Lot 2 of the northwest quarter of Section 1, Township 25 South, Range 14 East, M.D.B. & M.

II. Section 36, Township 24 South, Range 14 East, M.D.B. & M., the southwest quarter, and the south half of the southwest quarter of the northwest quarter, of Section 29, the south half, the southeast quarter of the northwest quarter and the south half of the northeast quarter, of Section 30, and Section 31, Township 24 South, Range 15 East, M.D.B. & M.

III. Lot 5 of Section 2, Township 24 South, Range 15 East, M.D.B. & M., Lots 1, 2, and 3, the northwest quarter of the northwest quarter, the west half of the southeast quarter, and the southeast quarter of the northwest quarter, of said Section 29, and that portion of Rancho Cholame lying on the northwesterly side of the line which begins at the intersection of the southwesterly boundary line of said Rancho with the southerly

boundary line of the north half of said Section 29 and runs thence northeasterly approximately 153.50 feet to the intersection of the northeasterly boundary line of said Rancho with the southerly boundary line of Section 14, Township 24 South, Range 15 East, M.D.B. & M.

IV. Lot 1, and Lot 7, and the southeast quarter of the northeast quarter, of said Section 2, the southeast quarter of Section 35, and Section 36, Township 23 South, Range 15 East, M.D.B. & M.

The aforesaid strip is described as follows:

1. A strip of land of the uniform width of 192.5 feet lying contiguous to and northwesterly of the northwesterly boundary line of the strip of land described and designated 1 in the deed from R. E. Jack Co. to Pacific Gas and Electric Company dated April 16, 1954 and recorded in the office of the County Recorder of said County of San Luis Obispo in Book 756 of Official Records at page 334 and also recorded in the office of the County Recorder of said County of Monterey in Book 1530 of Official Records at page 547 and extending from the southerly boundary line of Lot 1 of the northwest quarter of Section 1, Township 25 South, Range 14 East, M.D.B. & M., northeasterly 2840 feet, more or less, to the easterly boundary line of Lot 2 of the northwest quarter of said Section 1.
2. The strip of land bounded on the southerly side by the southerly boundary line of Section 36, Township 24 South, Range 14 East, M.D.B. & M., bounded on the southeasterly side by the northwesterly boundary line of (a) the strip of land described in the deed from Jeannette Parkes to Pacific Gas and Electric Company dated April 1, 1954 and recorded in the office of said County Recorder in Book 1522 of Official Records at page 419, and (b) the strip of land described and designated 2 in said deed dated April 16, 1954, bounded on the northerly side by the northerly boundary line of the south half of the southwest quarter of the northwest quarter of Section 29, Township 24 South, Range 15 East, M.D.B. & M., and bounded on the northwesterly side by a line which begins at a point in the southerly boundary line of said Section 36 and runs thence north $45^{\circ} 49' 57''$ east 80 feet, more or less, to a point herein for convenience called Point "A"; thence continuing north $45^{\circ} 49' 57''$ east 3327.96 feet; thence north $44^{\circ} 38' 49''$ east 922.73 feet; thence north $43^{\circ} 26' 39''$ east 1701.32 feet; thence north $45^{\circ} 49' 59''$ east 1123.69 feet; thence north $46^{\circ} 58' 39''$ east 4504.09 feet; thence north $45^{\circ} 50' 04''$ east 330 feet, more or less, to a point in the northerly boundary line of the south half of the southwest quarter of the northwest quarter of said Section 29; said Point "A" bears north $89^{\circ} 56' 28''$ east 3259.04 feet distant from the 2-inch iron pipe (stamped S 152 Estrella Ranch Boundary) marking the northwest corner of Section 1, Township 25 South, Range 14 East, M.D.B. & M.
3. A strip of land of the uniform width of 192.5 feet extending from the easterly boundary line of Lot 5 of Section 2, Township 24 South, Range 15 East, M.D.B. & M., southwesterly 27290 feet, more or less, to the southerly boundary line of the northwest quarter of the northwest quarter of Section 29, Township 24 South, Range 15 East, M.D.B. & M., and lying contiguous to and northwesterly of the northwesterly boundary line of the strip of land described and designated 4 in said deed dated April 16, 1954 for the initial 210 feet, lying contiguous to and northwesterly of the northwesterly boundary line of the strip of land described and designated 5 in said deed dated April 16, 1954 for the next 2720 feet, and lying contiguous to and northwesterly of the northwesterly boundary line of said strip of land designated 4 for the remaining 24360 feet; excepting therefrom the portion thereof lying within the boundary lines of Lot 4 of Section 20, Township 24 South, Range 15 East, M.D.B. & M.

4. A strip of land of the uniform width of 192.5 feet lying contiguous to and northwesterly of the northwesterly boundary line of the strip of land described and designated 6 in said deed dated April 16, 1954 and extending from the northerly boundary line of Section 36, Township 23 South, Range 15 East, M.D.B. & M., southwesterly 7830 feet, more or less, to the westerly boundary line of Lot 1 of Section 2, Township 24 South, Range 15 East, M.D.B. & M.

First party further grants to second party:

(a) the right of ingress to and egress from said strip over and across said lands by means of roads and lanes thereon, if such there be, otherwise by such route or routes as shall occasion the least practicable damage and inconvenience to first party; provided that such right of ingress and egress shall not extend to any portion of said lands which is isolated from said strip by any public road or highway now crossing or hereafter crossing said lands; provided, further, that if any portion of said lands is or shall be subdivided and dedicated roads or highways on such portion shall extend to said strip, said right of ingress and egress on said portion shall be confined to such dedicated roads and highways;

(b) the right from time to time to trim and to cut down and clear away or otherwise destroy any and all trees and brush now or hereafter on said strip and to trim and to cut down and clear away any trees on either side of said strip which now or hereafter in the opinion of second party may be a hazard to said towers, poles and/or other structures, wires or cables, by reason of the danger of falling thereon, or may interfere with the exercise of second party's rights hereunder; provided, however, that all trees which second party is hereby authorized to cut and remove, if valuable for timber or wood, shall continue to be the property of first party, but all tops, lops, brush and refuse wood shall be burned or removed by second party;

(c) the right from time to time to enlarge, improve, reconstruct, relocate and replace any poles, towers or structures constructed hereunder with any other number or type of poles or towers or structures either in the original location or at any alternate location or locations within said strip;

(d) the right to install, maintain and use gates in all fences which now cross or shall hereafter cross said strip;

(e) the right to mark the location of said strip by suitable markers set in the ground; provided that said markers shall be placed in fences or other locations which will not interfere with any reasonable use first party shall make of said strip.

Second party hereby covenants and agrees:

(a) second party shall not fence said strip;

(b) second party shall promptly backfill any excavations made by it on said strip and repair any damage it shall do to first party's private roads or lanes on said lands;

(c) second party shall indemnify first party against any loss and damage which shall be caused by the exercise of said ingress and egress or by any wrongful or negligent act or omission of second party or of its agents, employees, or independent contractors, arising out of or in any way connected with second party's occupancy or use of said lands.

First party reserves the right to use said strip for purposes which will not interfere with second party's full enjoyment of the rights hereby granted; provided that first party shall not:

(a) erect or construct any building or other structure, save and except fences and fencing, in connection with first party's use of said land; or drill or operate any well or construct any reservoir or other obstruction or add to the ground level in said strip;

(b) deposit or permit or allow to be deposited, earth, rubbish, debris, or any other substance or material, whether combustible or noncombustible, on said strip, or so near thereto as to constitute, in the opinion of second party, a hazard to said towers, poles, and/or other structures, wires or cables;

(c) grant any easement or easements on, under, or over said strip without

the written consent of second party.

The provisions hereof shall inure to the benefit of and bind the successors and assigns of the respective parties hereto, and all covenants shall apply to and run with the land.

IN WITNESS WHEREOF first party has executed these presents this 30th day of January, 1969.



THE HEARST CORPORATION
By [Signature]
Its Vice President
And By [Signature]
Its Ass't. Secretary

Executed in the presence of

[Signature]
Witness

CORPORATE ACKNOWLEDGMENT

STATE OF California
City & San Francisco
COUNTY OF San Francisco } ss.

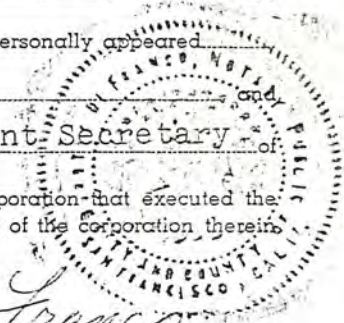
On this 30th day of January, 1969, before me, Dorothy Di Franco

a Notary Public in and for said County and State, residing therein, duly commissioned and sworn, personally appeared

Amory J. Cooke, known to me to be the Vice President

Robert E. Peyton, known to me to be the Assistant Secretary of

The Hearst Corporation, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.



DOROTHY DI FRANCO
WITNESS my hand and official seal.
CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA
C922 LAW PRINTING CO. HILLSIDE 7364
REG. U. S. PAT. OFFICE

[Signature]
Notary Public in and for said County and State.
My comm. expires 4/11/69

END OF DOCUMENT

DO NOT RECORD

Coast Valleys
GM 167497
Dwgs: 207981
thru 207990
T.23S., R.15E.,
M.D.B. & M.
Section 35
SE 1/4
Section 36
T.24S., R.15E.,
M.D.B. & M.
Section 1
S 1/2 of SW 1/4
NW 1/4 of SW 1/4
Section 2
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Section 30
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Section 31
T.25S., R.14E.,
M.D.B. & M.
Section 1
NW 1/4
T.24S., R.14E.,
M.D.B. & M.
Section 36
aj

Prepared BJA

Checked BJA

JAN 18 '69

Recording requested by
Title Insurance and Trust Co S-108684 BC
AFTER RECORDING, RETURN TO:

2223-15-0028
FOR RECORDER'S USE ONLY

Title Insurance and Trust Co
P.O.Box 810
San Luis Obispo, California 93401

G 19833

069852205 80000280 REGR

Doc. No. 17728
OFFICIAL RECORDS
SAN LUIS OBISPO CO., CALIF.
COUNTY RECORDER

RECORDED AT REQUEST OF

Title Insurance and Trust Company

AUG 9 2 41 PM '69

OFFICE OF RECORDER 2.80
COUNTY OF MONTEREY
SALINAS, CALIFORNIA

AUG 20 1969

TIME 8:01 A.M.

COMPARED

SUBORDINATION AGREEMENT

REEL 616 PAGE 665

THIS AGREEMENT is made by and between THE T I CORPORATION (of California), a corporation, formerly Title Insurance and Trust Company, a corporation, as trustee under that certain deed of trust dated October 31, 1966 and recorded in Book 1415 of Official Records at page 207 in the office of the County Recorder and recorded 11-1-66 in Reel 482, Page 161, Official Records, Mty. Co. of San Luis Obispo County, State of California/ (under which Howard V. Jack, Virginia J. Tynan, Phyllis Sinton, Margaret E. Kaetzel, Gertrude Kathleen Kaetzel, ~~Frances K. Normand~~, Judith Kaetzel, and Melba Kaetzel Reticker, by assignment, are beneficiaries), hereinafter called first party, and PACIFIC GAS AND ELECTRIC COMPANY, a corporation, hereinafter called second party.

WITNESSETH that in consideration of One Dollar (\$1.00) paid by second party, the receipt of which is hereby acknowledged, and at the request of said beneficiaries, first party does hereby consent to execution of a grant of right of way from the Hearst Corporation, a corporation, to second party for electric transmission facilities across the lands described in said deed of trust, and hereby agrees that any sale made under the provisions of said deed of trust shall be subject to said right of way.

IN WITNESS WHEREOF first party has executed these presents, this 25th day of April, 1969

THE T I CORPORATION, Trustee

By [Signature]

Its ASSISTANT

And By [Signature]

Its [Signature] Secretary

The undersigned hereby represent to said trustee that the undersigned are

G 19833

AUG - 3 1969

now the owners and holders of the note secured by and are the beneficiaries under said deed of trust and that the undersigned have not assigned or transferred said note or said deed of trust and said trustee is hereby requested to execute the foregoing consent.

Margaret E. Kaetzel
Gertrude Kathleen Kaetzel
Judith Kaetzel Chamberlin formerly Judith Kaetzel
Howard V. Jack
Melba Kaetzel Reticker
Virginia J. Tynan
Phyllis Sinton

Executed in the presence of:

Beneficiaries under said deed of trust

James M. Lutzger

Witness

STATE OF CALIFORNIA

ss.

City and County of San Francisco

On this 24th day of June, 1969, before me, Lucille Mullen, a Notary Public in and for the said City and County, duly commissioned and sworn, personally appeared Floyd H. Bjorklund known to me to be the same person whose name is subscribed to the within instrument, as a witness thereto, who, being duly sworn, deposed and said that he resides in the Fresno County of Fresno, State of California, that he was present and saw

Margaret E. Kaetzel, Gertrude Kathleen Kaetzel, Judith Kaetzel Chamberlin, formerly Judith Kaetzel, Howard V. Jack, Melba Kaetzel Reticker, Virginia J. Tynan and Phyllis Sinton

(personally known to him to be the persons described in and who executed the said instrument, as part ~~ies~~ thereto), sign and execute the same, and that, at their request, he, the said affiant, thereupon subscribed his name as a witness thereto.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal in the said City and County of San Francisco the day and year in this certificate first above written.



Lucille Mullen
Lucille Mullen

Notary Public in and for the City and County of San Francisco, State of California
My Commission Expires January 23, 1971

(TI)

(Corporation)

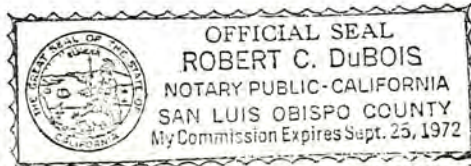
STATE OF CALIFORNIA
COUNTY OF SAN LUIS OBISPO } ss.

On APRIL 30, 1969 before me, the undersigned, a Notary Public in and for said State, personally appeared CHARLES F. DORSEY known to me to be the Asst. VICE President, and EDA A. RITTENHOUSE known to me to be the Asst. Secretary of the corporation that executed the within Instrument,

known to me to be the persons who executed the within Instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the within instrument pursuant to its by-laws or a resolution of its board of directors.

WITNESS my hand and official seal.

Signature [Handwritten Signature]



1341 Chorro St., San Luis Obispo, Calif. 93401

Name (Typed or Printed)

END OF DOCUMENT

(This area for official notarial seal)

DO NOT RECORD

Coast Valleys
GM 167497
Dwgs: 207981
thru 207990
T.23S., R.15E.,
M.D.B.& M.
Section 35
SE $\frac{1}{4}$
Section 36
T.24S., R.15E.,
M.D.B.& M.
Section 1
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Section 31
T.25S., R.14E.,
M.D.B.& M.
Section 1
NW $\frac{1}{4}$
T.24S., R.14E.,
M.D.B.& M.
Section 36
mmc

Prepared *CSH*

Checked *CSH*

DEC -5 '68

Recording requested by
Title Insurance and Trust Co 5-108429 BR
AFTER RECORDING, RETURN TO:

Reel 616 Page 669
FOR RECORDER'S USE ONLY
2223-15-0028

Title Insurance and Trust Co
P.O. Box 810
San Luis Obispo, California 93401

G 19835

069872208 200003.60 RECOR

RECORDED AT REQUEST OF

Title Insurance and Trust Co

069872208 200003.6071

DOC. NO. 17730
OFFICIAL RECORDS
SAN LUIS OBISPO CO., CALIF.
COUNTY RECORDER

AUG 8 2 42 PM '69

3.60

OFFICE OF RECORDER
COUNTY OF MONTEREY
SALINAS, CALIFORNIA

AUG 20 1969

REEL 616 PAGE 669

TIME 8:01 A.M.

SUBORDINATION AGREEMENT

THIS AGREEMENT is made by and between THE T I CORPORATION (OF CALIFORNIA), a corporation, formerly Title Insurance and Trust Company, a corporation, as trustee under that certain deed of trust dated October 31, 1966 and recorded in Book 1415 of Official Records at page 207 in the office of the County Recorder and recorded 11-1-66 in Reel 482, Page 161, Official Records, Mty. Co. corder of San Luis Obispo County, State of California, (under which Frances Kaetzel Normand, also known as Frances K. Normand, also known as Frances Hollister Normand, also known as Frances Normand, deceased, was, and her estate now is, by assignment, one of the beneficiaries), hereinafter called first party, and PACIFIC GAS AND ELECTRIC COMPANY, a corporation, hereinafter called second party.

G 19835

Aug 11 1969

WITNESSETH that in consideration of One Dollar (\$1.00) paid by second party, the receipt of which is hereby acknowledged, and at the request of the executrix of said estate, first party does hereby consent to execution of a grant of right of way from the Hearst Corporation, a corporation, to second party for electric transmission facilities across the lands described in said deed of trust, and hereby agrees that any sale made under the provisions of said deed of trust shall

subject to said right of way.

IN WITNESS WHEREOF first party has executed these presents this 10th

DAY of June, 19 69

THE T I CORPORATION, (OF CALIFORNIA), Trustee

By Charles F. [Signature]
Its Assistant Vice President

And By Lee [Signature]
Its Assistant Secretary



The undersigned hereby represents to said trustee that the undersigned is the executrix of the estate of Frances Kaetzel Normand, also known as Frances K. Normand, also known as Frances Hollister Normand, also known as Frances Normand, deceased, who, by assignment, was the owner and holder of an interest in the note secured by, and whose estate now is one of the beneficiaries under, said deed of trust and that the interest in said note or deed of trust has not been assigned or transferred and said trustee is hereby requested to execute the foregoing consent pursuant to an order of the Superior Court of the State of California, in and for the County of San Luis Obispo in the proceedings entitled "In the Matter of the Estate of FRANCES KAETZEL NORMAND, also known as FRANCES K. NORMAND, also known as FRANCES HOLLISTER NORMAND, also known as FRANCES NORMAND, Deceased," being No. 13162 in the files of said court.

Executed in the presence of:

Witness

Margaret Kaetzel
Executrix of the Estate of Frances Kaetzel Normand, also known as Frances K. Normand, also known as Frances Hollister Normand, also known as Frances Normand, Deceased, as beneficiary under said deed of trust

be subject to said right of way.

IN WITNESS WHEREOF first party has executed these presents this 10th day of June, 19 69



THE T I CORPORATION (OF CALIFORNIA), Trustee

By Charles F. Danley
Its Assistant Vice President
And By Lee Locke
Its Assistant Secretary

The undersigned hereby represents to said trustee that the undersigned is the executrix of the estate of Frances Kaetzel Normand, also known as Frances K. Normand, also known as Frances Hollister Normand, also known as Frances Normand, deceased, who, by assignment, was the owner and holder of an interest in the note secured by, and whose estate now is one of the beneficiaries under, said deed of trust and

TO 449 C
(Corporation)

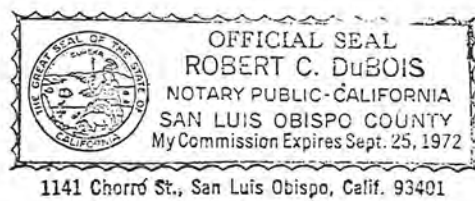
REEL 616 PAGE 671 (TI)

or transferred pursuant to the County of state of FRANCES CES HOLLISTER the files of

STATE OF CALIFORNIA
COUNTY OF San Luis Obispo SS.

On June 10, 1969 before me, the undersigned, a Notary Public in and for said State, personally appeared Charles F. Danley known to me to be the Assistant Vice President, and Lee Locke known to me to be Assistant Secretary of the corporation that executed the within Instrument, known to me to be the persons who executed the within Instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the within instrument pursuant to its by-laws or a resolution of its board of directors.

WITNESS my hand and official seal.
Signature Robert C. DuBois
Name (Typed or Printed)



STATE OF CALIFORNIA,
County of San Luis Obispo ss.

On this 23rd day of May, in the year one thousand nine hundred and sixty-nine before me, PETER R. ANDRE

a Notary Public in and for the said County of San Luis Obispo, State of California, residing therein, duly commissioned and sworn, personally appeared Margaret Kaetzel, as executrix of the last will of Frances K. Normand, deceased, known to me to be the person whose name is subscribed to the within instrument, and acknowledged to me that she executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal in the said County of San Luis Obispo, the day and year in this certificate first above written.

Peter R. Andre
Notary Public in and for the San Luis Obispo County of San Luis Obispo State of California.
My Commission Expires 7/26/72



END OF DOCUMENT

DO NOT RECORD

Coast Valleys
GM 167497
Dwgs: 207981
thru 207990
T.23S., R.15E.,
M.D.B. & M.
Section 35
SE-1/4
Section 36
T.24S., R.15E.,
M.D.B. & M.
Section 1
S-1/2 of SW-1/4
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Section 15
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SE-1/4 of SE-1/4
Section 30
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SE-1/4 of NW-1/4
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Section 31
T.25S., R.14E.,
M.D.B. & M.
Section 1
NW-1/4
T.24S., R.14E.,
M.D.B. & M.
Section 36
mmc

Prepared MAN

Checked CEK

MAR27 1969

Recording requested by:
Title Insurance and Trust Co

G 19834

REEL 616 PAGE 667

2223-15-0028

Return to:

RECORDED AT REQUEST OF

Title Insurance and Trust Co
P.O.Box 810
San Luis Obispo, California 93401

Title Insurance and Trust Co

AUG 8 2 41 PM '69

2.80 069862203 0000028073

OFFICE OF RECORDER
COUNTY OF MONTEREY
SALINAS, CALIFORNIA

ENDORSED

REEL 616 PAGE 667

FILED

MAY 8 1969

RUTH HARRISON, COUNTY CLERK

By: DOROTHY GRADEN
DEPUTY CLERK

1 ANDRE and WOOD
2 Attorneys at Law
3 210 Sinsheimer Trust Building
4 San Luis Obispo, California
5 Telephone: 543-4171

REC. NO.

17729

6 OFFICIAL RECORDS
7 LUIS OBISPO CO., CALIF.
8 COUNTY RECORDER

9 AUG 20 1969

10 TIME 8:01 A.M. IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

11 COMPARED IN AND FOR THE COUNTY OF SAN LUIS OBISPO

12 In the Matter of the Estate of)
13 FRANCES KAETZEL NORMAND, also)
14 known as FRANCES K. NORMAND,)
15 also known as FRANCES HOLLISTER)
16 NORMAND, also known as FRANCES)
17 NORMAND, Deceased)

No. 13162

ORDER AUTHORIZING THE EXECUTION OF A
REQUEST FOR A SUBORDINATION AGREEMENT

18 There having come on regularly to be heard by this court on the 5th
19 day of May, 1969, the duly verified petition of
20 Margaret Kaetzel, as executrix of the above entitled estate for an order of this
21 court authorizing and directing the petitioner, pursuant to the provisions of
22 Section 587 of the Probate Code of the State of California, to execute a request
23 for an agreement subordinating a deed of trust to a right of way and easement of
24 Pacific Gas and Electric Company, a public utility corporation, which said agree-
25 ment is set forth in the form which is attached to the petition herein and
26 marked Exhibit "A" and it appearing to the satisfaction of the court, and the
27 court finds, that notice of the time and place of the hearing of said petition
28 has been duly and regularly given for the time and in the manner required by law,
29 and that special notice was given to all persons requesting such special notice
30 and no person having appeared in court to except or object to the granting of said

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petition.

And it further appearing that Margaret Kaetzel is the duly appointed, qualified and acting executrix of the above entitled estate.

And it further appearing to the satisfaction of the court and the court finds, that all the allegations contained in said petition are true and that it is to the advantage, benefit, and best interest of said estate, and those interested therein, that said petition be granted, and the court being fully advised:

IT IS NOW ORDERED, ADJUDGED, AND DECREED that Margaret Kaetzel, as executrix of the above entitled estate, be and she is hereby authorized and directed to execute a request for an agreement subordinating a deed of trust to a right of way and easement of Pacific Gas and Electric Company which said agreement is set forth in the form which is attached to said petition and marked Exhibit "A".

IT IS FURTHER ORDERED AND DECREED that said request for a subordination agreement hereby authorized to be executed shall be an instrument in the form which is attached to the petition herein and marked Exhibit "A"; and all of the terms, provisions, and conditions as contained in said Exhibit "A" are hereby approved.

Dated this 8th day of May, 1969.

TIMOTHY I. O'NEILLY

Judge

ATTEST: A TRUE COPY
RUTH WARNKEN
County Clerk

BY Anthony Braden
DEPUTY CLERK

END OF DOCUMENT

2223-15-0028



TO 1012 PC (7-68)
California Land Title Association
Standard Coverage Policy Form
Copyright 1963

POLICY OF TITLE INSURANCE

ISSUED BY

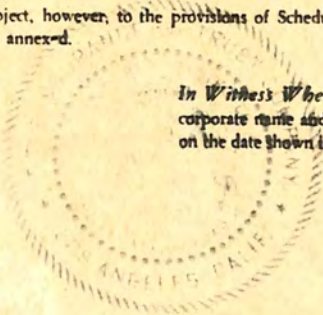
Title Insurance and Trust Company

Title Insurance and Trust Company, a California corporation, herein called the Company, for a valuable consideration paid for this policy, the number, the effective date, and amount of which are shown in Schedule A, hereby insures the parties named as Insured in Schedule A, the heirs, devisees, personal representatives of such Insured, or if a corporation, its successors by dissolution, merger or consolidation, against loss or damage not exceeding the amount stated in Schedule A, together with costs, attorneys' fees and expenses which the Company may become obligated to pay as provided in the Conditions and Stipulations hereof, which the Insured shall sustain by reason of:

1. Any defect in or lien or encumbrance on the title to the estate or interest covered hereby in the land described or referred to in Schedule C, existing at the date hereof, not shown or referred to in Schedule B or excluded from coverage in Schedule B or in the Conditions and Stipulations; or
2. Unmarketability of such title; or
3. Any defect in the execution of any mortgage shown in Schedule B securing an indebtedness, the owner of which is named as an Insured in Schedule A, but only insofar as such defect affects the lien or charge of said mortgage upon the estate or interest referred to in this policy; or
4. Priority over said mortgage, at the date hereof, of any lien or encumbrance not shown or referred to in Schedule B, or excluded from coverage in the Conditions and Stipulations, said mortgage being shown in Schedule B in the order of its priority;

all subject, however, to the provisions of Schedules A, B and C and to the Conditions and Stipulations hereto annexed.

In Witness Whereof, Title Insurance and Trust Company has caused its corporate stamp and seal to be hereunto affixed by its duly authorized officers on the date shown in Schedule A.



Title Insurance and Trust Company

by PRESIDENT

Attest SECRETARY

CONDITIONS AND STIPULATIONS

1. DEFINITION OF TERMS

The following terms when used in this policy mean:

(a) **land**—the land described, specifically or by reference, in Schedule C and improvements affixed thereto which by law constitute real property;

(b) **public records**—those records which impart constructive notice of matters relating to said land;

(c) **knowledge**—actual knowledge, not constructive knowledge or notice which may be imputed to the Insured by reason of any public records;

(d) **date**—the effective date;

(e) **mortgage**—mortgage, deed of trust, trust deed, or other security instrument; and

(f) **insured**—the party or parties named as Insured, and if the owner of the indebtedness secured by a mortgage shown in Schedule B is named as an Insured in Schedule A, the Insured shall include (1) each successor in interest in ownership of such indebtedness, (2) any such owner who acquires the estate or interest referred to in this policy by foreclosure, trustee's sale, or other legal manner in satisfaction of said indebtedness, and (3) any federal agency or instrumentality which is an insurer or guarantor under an insurance contract or guaranty insuring or guaranteeing said indebtedness or any part thereof, whether named as an insured herein or not, subject otherwise to the provisions hereof.

2. BENEFITS AFTER ACQUISITION OF TITLE

If an insured owner of the indebtedness secured by a mortgage described in Schedule B acquires said estate or interest, or any part thereof, by foreclosure, trustee's sale, or other legal manner in satisfaction of said indebtedness, or any part thereof, or if a federal agency or instrumentality acquires said estate or interest, or any part thereof, as a consequence of an insurance contract or guaranty insuring or guaranteeing the indebtedness secured by a mortgage covered by this policy, or any part thereof, this policy shall continue in force in favor of such Insured, agency or instrumentality, subject to all of the conditions and stipulations hereof.

3. EXCLUSIONS FROM THE COVERAGE OF THIS POLICY

This policy does not insure against loss or damage by reasons of the following:

(a) Any law, ordinance or governmental regulation (including but not limited to building and zoning ordinances) restricting or regulating or prohibiting the occupancy, use or enjoyment of the land, or regulating the character, dimensions, or location of any improvement now or hereafter erected on said land, or prohibiting a separation in ownership or a reduction in the dimensions or area of any lot or parcel of land;

(b) Governmental rights of police power or eminent domain, unless notice of the exercise of such rights appears in the public records at the date hereof;

(c) Title to any property beyond the lines of the land expressly described in Schedule C, or title to streets, roads, avenues, lanes, ways or waterways on which

such land abuts, or the right to maintain therein vaults, tunnels, ramps or any other structure or improvement; or any rights or easements therein unless this policy specifically provides that such property, rights or easements are insured, except that if the land abuts upon one or more physically open streets or highways this policy insures the ordinary rights of abutting owners for access to one of such streets or highways, unless otherwise excepted or excluded herein.

(d) Defects, liens, encumbrances, adverse claims against the title as insured or other matters (1) created, suffered, assumed or agreed to by the Insured claiming loss or damage; or (2) known to the Insured Claimant either at the date of this policy or at the date such Insured Claimant acquired an estate or interest insured by this policy and not shown by the public records, unless disclosure thereof in writing by the Insured shall have been made to the Company prior to the date of this policy; or (3) resulting in no loss to the Insured Claimant; or (4) attaching or created subsequent to the date hereof.

(e) Loss or damage which would not have been sustained if the Insured were a purchaser or encumbrancer for value without knowledge.

4. DEFENSE AND PROSECUTION OF ACTIONS —NOTICE OF CLAIM TO BE GIVEN BY THE INSURED

(a) The Company, at its own cost and without undue delay shall provide (1) for the defense of the Insured in all litigation consisting of actions or proceedings commenced against the Insured, or defenses, restraining orders, or injunctions interposed against a foreclosure or sale of the mortgage and indebtedness covered by this policy or a sale of the estate or interest in said land; or (2) for such action as may be appropriate to establish the title of the estate or interest or the lien of the mortgage as insured, which litigation or action in any of such events is founded upon an alleged defect, lien or encumbrance insured against by this policy, and may pursue any litigation to final determination in the court of last resort.

(b) In case any such action or proceeding shall be begun, or defense interposed, or in case knowledge shall come to the Insured of any claim of title or interest which is adverse to the title of the estate or interest or lien of the mortgage as insured, or which might cause loss or damage for which the Company shall or may be liable by virtue of this policy, or if the Insured shall in good faith contract to sell the indebtedness secured by a mortgage covered by this policy, or if an Insured in good faith leases or contracts to sell, lease or mortgage the same, or if the successful bidder at a foreclosure sale under a mortgage covered by this policy refuses to purchase and in any such event the title to said estate or interest is rejected as unmarketable, the Insured shall notify the Company thereof in writing. If such notice shall not be given to the Company within ten days of the receipt of process or pleadings or if the Insured shall not, in writing, promptly notify the Company of any de-

fect, lien or encumbrance insured against which shall come to the knowledge of the Insured, or if the Insured shall not, in writing, promptly notify the Company of any such rejection by reason of claimed unmarketability of title, then all liability of the Company in regard to the subject matter of such action, proceeding or matter shall cease and terminate; provided, however, that failure to notify shall in no case prejudice the claim of any Insured unless the Company shall be actually prejudiced by such failure and then only to the extent of such prejudice.

(c) The Company shall have the right at its own cost to institute and prosecute any action or proceeding or do any other act which in its opinion may be necessary or desirable to establish the title of the estate or interest or the lien of the mortgage as insured; and the Company may take any appropriate action under the terms of this policy whether or not it shall be liable thereunder and shall not thereby concede liability or waive any provision of this policy.

(d) In all cases where this policy permits or requires the Company to prosecute or provide for the defense of any action or proceeding, the Insured shall secure to it the right to so prosecute or provide defense in such action or proceeding, and all appeals therein, and permit it to use, at its option, the name of the Insured for such purpose. Whenever requested by the Company the Insured shall give the Company all reasonable aid in any such action or proceeding, in effecting settlement, securing evidence, obtaining witnesses, or prosecuting or defending such action or proceeding, and the Company shall reimburse the Insured for any expense so incurred.

5. NOTICE OF LOSS — LIMITATION OF ACTION

In addition to the notices required under paragraph 4(b), a statement in writing of any loss or damage for which it is claimed the Company is liable under this policy shall be furnished to the Company within sixty days after such loss or damage shall have been determined and no right of action shall accrue to the Insured under this policy until thirty days after such statement shall have been furnished, and no recovery shall be had by the Insured under this policy unless action shall be commenced thereon within five years after expiration of said thirty day period. Failure to furnish such statement of loss or damage, or to commence such action within the time hereinbefore specified, shall be a conclusive bar against maintenance by the Insured of any action under this policy.

6. OPTION TO PAY, SETTLE OR COMPROMISE CLAIMS

The Company shall have the option to pay or settle or compromise for or in the name of the Insured any claim insured against or to pay the full amount of this policy, or, in case loss is claimed under this policy by a mortgage covered by this policy, the Company shall have the option to purchase said indebtedness; such purchase, payment or tender of payment of

(Conditions and Stipulations Continued and Concluded on Last Page of This Policy)

SCHEDULE A

Premium \$ 194.00

Amount \$ 24,000.00 Effective Date AUGUST 20, 1969 AT 8:01 A.M. Policy No. 94021
INSURED

PACIFIC GAS AND ELECTRIC COMPANY, A CORPORATION

1. Title to the estate or interest covered by this policy at the date hereof is vested in:

PACIFIC GAS AND ELECTRIC COMPANY, A CALIFORNIA CORPORATION

2. The estate or interest in the land described or referred to in Schedule C covered in this policy is:

THOSE PERPETUAL AND EXCLUSIVE EASEMENTS AND RIGHTS OF WAY TO CONSTRUCT, OPERATE, MAINTAIN, REPAIR, RECONSTRUCT, REPLACE AND REMOVE, AT ANY TIME AND FROM TIME TO TIME, ELECTRIC TRANSMISSION LINES, CONSISTING OF ONE OR MORE LINES OF TOWERS, POLES, AND/OR OTHER STRUCTURES, WIRES AND CABLES, INCLUDING GROUND WIRES, BOTH OVERHEAD AND UNDER GROUND FOR THE TRANSMISSION OF ELECTRIC ENERGY, AND FOR COMMUNICATION PURPOSES, AND ALL NECESSARY AND PROPER FOUNDATIONS, FOOTINGS, CROSSARMS AND OTHER APPLIANCES AND FIXTURES FOR USE IN CONNECTION WITH SAID TOWERS, POLES, AND/OR OTHER STRUCTURES, WIRES AND CABLES, TOGETHER WITH A RIGHT OF WAY ON, ALONG AND IN ALL OF THE HEREINAFTER DESCRIBED STRIP OF THOSE CERTAIN LANDS AS DESCRIBED IN SCHEDULE C.

TOGETHER WITH:

(A) THE RIGHT OF INGRESS TO AND EGRESS FROM SAID STRIP OVER AND ACROSS SAID LANDS BY MEANS OF ROADS AND LANES THEREON, IF SUCH THERE BE, OTHERWISE BY SUCH ROUTE OR ROUTES, AS SHALL OCCASION THE LEAST PRACTICABLE DAMAGE AND INCONVENIENCE TO FIRST PARTY; PROVIDED THAT SUCH RIGHT OF INGRESS AND EGRESS SHALL NOT EXTEND TO ANY PORTION OF SAID LANDS WHICH IS ISOLATED FROM SAID STRIP BY ANY PUBLIC ROAD OR HIGHWAY NOW CROSSING OR HEREAFTER CROSSING SAID LANDS; PROVIDED, FURTHER, THAT IF ANY PORTION OF SAID LANDS IS OR SHALL BE SUBDIVIDED AND DEDICATED ROADS OR HIGHWAYS ON SUCH PORTION SHALL EXTEND TO SAID STRIP, SAID RIGHT OF INGRESS AND EGRESS ON SAID PORTION SHALL BE CONFINED TO SUCH DEDICATED

• (CONTINUED)

94021-RCD

• ROADS AND HIGHWAYS;

(B) THE RIGHT FROM TIME TO TIME TO TRIM AND TO CUT DOWN AND CLEAR AWAY OR OTHERWISE DESTROY ANY AND ALL TREES AND BRUSH NOW OR HEREAFTER ON SAID STRIP AND TO TRIM AND TO CUT DOWN AND CLEAR AWAY ANY TREES ON EITHER SIDE OF SAID STRIP WHICH NOW OR HEREAFTER IN THE OPINION OF SECOND PARTY MAY BE A HAZARD TO SAID TOWERS, POLES AND/OR OTHER STRUCTURES, WIRES OR CABLES, BY REASON OF THE DANGER OF FALLING THEREON, OR MAY INTERFERE WITH THE EXERCISE OF SECOND PARTY'S RIGHTS HEREUNDER; PROVIDED, HOWEVER, THAT ALL TREES WHICH SECOND PARTY IS HEREBY AUTHORIZED TO CUT AND REMOVE, IF VALUABLE FOR TIMBER OR WOOD, SHALL CONTINUE TO BE THE PROPERTY OF FIRST PARTY, BUT ALL TOPS, LOPS, BRUSH AND REFUSE WOOD SHALL BE BURNED OR REMOVED BY SECOND PARTY;

(C) THE RIGHT FROM TIME TO TIME TO ENLARGE, IMPROVE, RECONSTRUCT, RELOCATE AND REPLACE ANY POLES, TOWERS OR STRUCTURES CONSTRUCTED HEREUNDER WITH ANY OTHER NUMBER OR TYPE OF POLES OR TOWERS OR STRUCTURES EITHER IN THE ORIGINAL LOCATION OR ANY ALTERNATE LOCATION OR LOCATIONS WITHIN SAID STRIP;

(D) THE RIGHT TO INSTALL, MAINTAIN AND USE GATES IN ALL FENCES WHICH NOW CROSS OR SHALL HEREAFTER CROSS SAID STRIP;

(E) THE RIGHT TO MARK THE LOCATION OF SAID STRIP BY SUITABLE MARKERS SET IN THE GROUND; PROVIDED THAT SAID MARKERS SHALL BE PLACED IN FENCES OR OTHER LOCATIONS WHICH WILL NOT INTERFERE WITH ANY REASONABLE USE FIRST PARTY SHALL MAKE OF SAID STRIP.

ALL AS GRANTED TO THE VESTEE HEREIN BY DEED RECORDED AUGUST 8, 1969 IN THE OFFICE OF THE COUNTY RECORDER OF MONTEREY COUNTY, CALIFORNIA AND RECORDED AUGUST 20, 1969 IN THE OFFICE OF THE COUNTY RECORDER OF SAN LUIS OBISPO COUNTY, CALIFORNIA.

SCHEDULE B — (Continued)

PART II

1. GENERAL AND SPECIAL COUNTY TAXES
FOR THE FISCAL YEAR 1969-1970, A LIEN NOT YET PAYABLE.

2. AN EASEMENT AFFECTING THE PORTION OF SAID LAND AND FOR THE
PURPOSES STATED HEREIN, AND INCIDENTAL PURPOSES,
IN FAVOR OF

FOR
RECORDED
AFFECTS

: PACIFIC GAS AND ELECTRIC COMPANY, A CALI-
FORNIA CORPORATION
: LINE OF TOWERS, WIRES AND CABLES, RIGHT
TO TRIM TREES AND INGRESS AND EGRESS
: APRIL 23, 1954 IN BOOK 1522, PAGE 419 OF
OFFICIAL RECORDS OF MONTEREY COUNTY
: A STRIP OF LAND OF THE UNIFORM WIDTH OF
75 FEET LYING EQUALLY ON EACH SIDE OF THE
LINE WHICH BEGINS AT A POINT IN THE NORTHERLY
BOUNDARY LINE OF SAID LANDS AND RUNS THENCE
SOUTH 44° 59' WEST, 185 FEET, MORE OR LESS,
TO A POINT HEREIN FOR CONVENIENCE CALLED POINT
"A"; THENCE CONTINUING SOUTH 44° 59' WEST, 355
FEET, MORE OR LESS TO THE WESTERLY BOUNDARY
LINE OF SAID LANDS; SAID POINT "A" BEARS SOUTH
49° 39' WEST, 2772.3 FEET, DISTANT FROM THE
4" X 4" POST (MARKED H.R. 24 S) MARKING THE
NORTHEAST CORNER OF LOT 1 OF SAID SECTION 29.

3. AN EASEMENT AFFECTING THE PORTION OF SAID LAND AND FOR THE
PURPOSES STATED HEREIN, AND INCIDENTAL PURPOSES,
IN FAVOR OF

FOR
RECORDED
AFFECTS

: PACIFIC GAS AND ELECTRIC COMPANY, A CALI-
FORNIA CORPORATION
: A LINE OF TOWERS
: MAY 12, 1954 IN BOOK 756, PAGE 334 OF
OFFICIAL RECORDS OF SAN LUIS OBISPO COUNTY
: LOTS 1 AND 2 OF SECTION 1 IN TOWNSHIP 25
SOUTH, RANGE 14 EAST, MOUNT DIABLO MERIDIAN.

4. AN EASEMENT AFFECTING THE PORTION OF SAID LAND AND FOR THE
PURPOSES STATED HEREIN, AND INCIDENTAL PURPOSES,
IN FAVOR OF

FOR
RECORDED
AFFECTS

: PACIFIC GAS AND ELECTRIC COMPANY, A CORPORA-
TION
: RIGHT OF WAY FOR LINE OF TOWERS WITH WIRES
AND CABLES, ETC.
: JUNE 3, 1954 IN BOOK 1530, PAGE 547 OF
OFFICIAL RECORDS OF MONTEREY COUNTY
: A STRIP OF LAND OF THE UNIFORM WIDTH OF 75
FEET EXTENDING ENTIRELY ACROSS THE PARCEL OF
LAND HEREINAFTER DESCRIBED AND LYING EQUALLY
ON EACH SIDE OF THE LINE WHICH BEINGS AT A
POINT IN THE EASTERLY BOUNDARY LINE OF SAID
PARCEL OF LAND, SAID EASTERLY BOUNDARY LINE
BEING THE EASTERLY BOUNDARY LINE OF LOT 5 OF
SAID SECTION 2 IN TOWNSHIP 24 SOUTH, RANGE 15

(CONTINUED)

EAST, MOUNT DIABLO MERIDIAN, AND RUNS THENCE SOUTH 41° 45' WEST, 60 FEET, MORE OR LESS, TO A POINT HEREIN FOR CONVENIENCE CALLED POINT "D"; SAID POINT "D" BEING IN THE NORTHEASTERLY BOUNDARY LINE OF SAID RANCHO; THENCE CONTINUING SOUTH 41° 45' WEST 19.0 FEET TO A POINT HEREIN FOR CONVENIENCE CALLED POINT "E"; THENCE SOUTH 40° 45' 1/2' WEST, 19.0 FEET TO A POINT HEREIN FOR CONVENIENCE CALLED POINT "E"; THENCE SOUTH 40° 45' 1/2' WEST, 1391.2 FEET; THENCE SOUTH 42° 47' WEST, 1325.2 FEET TO A POINT HEREIN FOR CONVENIENCE CALLED POINT "F"; THENCE SOUTH 41° 45' WEST 6996.1 FEET; THENCE SOUTH 29° 51' WEST 1896.7 FEET; THENCE SOUTH 38° 15' WEST 1150.0 FEET; THENCE SOUTH 36° 39' WEST, 1213.1 FEET; THENCE SOUTH 35° 03' WEST 5994.1 FEET; THENCE SOUTH 44° 59' WEST, 7820 FEET, MORE OR LESS TO THE SOUTHERLY BOUNDARY LINE OF SAID PARCEL OF LAND, SAID SOUTHERLY BOUNDARY LINE BEING THE SOUTHERLY BOUNDARY LINE OF THE NORTHWEST 1/2 OF THE NORTHWEST 1/2 OF SAID SECTION 29, TOWNSHIP 24 SOUTH, RANGE 15 EAST, MOUNT DIABLO MERIDIAN; SAID POINT "D" BEARS SOUTH 50° 22' EAST 2128.0 FEET FROM THE 1 1/4 INCH IRON PIPE MARKING THE MOST NORTHERLY CORNER OF SAID RANCHO.

ALSO AFFECTS A STRIP OF LAND OF THE UNIFORM WIDTH OF 75 FEET LYING EQUALLY ON EACH SIDE OF THE LINE WHICH BEGINS AT SAID POINT "E" AND RUNS THENCE SOUTH 42° 44 1/2' WEST, 1391.2 FEET; THENCE SOUTH 40° 43' WEST, 1325.2 FEET, MORE OR LESS, TO SAID POINT "E".

✓ 5. A DEED OF TRUST TO SECURE AN INDEBTEDNESS OF THE AMOUNT STATED HEREIN AND ANY OTHER AMOUNTS PAYABLE UNDER THE TERMS THEREOF

| | |
|----------------|---|
| DATED | : OCTOBER 31, 1966 |
| AMOUNT | : \$4,939,932.50 |
| TRUSTOR | : THE HEARST CORPORATION, A DELAWARE CORPORATION |
| TRUSTEE | : TITLE INSURANCE AND TRUST COMPANY, A CALIFORNIA CORPORATION |
| BENEFICIARY | : R. E. JACK CO., A CALIFORNIA CORPORATION |
| RECORDED | : NOVEMBER 1, 1966 IN BOOK 1415, PAGE 207 OF OFFICIAL RECORDS OF SAN LUIS OBISPO COUNTY |
| INSTRUMENT NO. | : 22516 |
| AND RECORDED | : NOVEMBER 1, 1966 IN BOOK 482, PAGE 161 OF OFFICIAL RECORDS OF MONTEREY COUNTY. |

SAID MATTER AFFECTS THIS AND OTHER PROPERTY.

AN INSTRUMENT MODIFIED SAID DEED OF TRUST BY INCLUDING THEREIN THE HEREIN DESCRIBED LAND,

| | |
|-------------|---|
| EXECUTED BY | : THE HEARST CORPORATION, A DELAWARE CORPORATION, TITLE INSURANCE AND TRUST COMPANY, A CALIFORNIA CORPORATION, AND R. E. JACK CO., A CALIFORNIA CORPORATION |
| DATED | : NOVEMBER 22, 1966 |
| LAND | : LOT 1 IN SECTION 19, IN TOWNSHIP 25 SOUTH, RANGE 16 EAST, MOUNT DIABLO MERIDIAN |
| RECORDED | : JANUARY 6, 1967 IN THE OFFICE OF THE COUNTY RECORDER OF SAN LUIS OBISPO COUNTY. |

•(CONTINUED)

SAID DEED OF TRUST HAS BEEN SUBORDINATED TO THE SUBJECT MATTER REFERRED TO IN THIS PARAGRAPH BY THE PROVISIONS OF AN INSTRUMENT
DATED : APRIL 25, 1969
EXECUTED BY : THE TI CORPORATION, TRUSTEE, ET AL
RECORDED : AUGUST 8, 1969 IN REEL 616, PAGE 665 OF OFFICIAL RECORDS OF MONTEREY COUNTY

AND RECORDED : AUGUST 20, 1969 IN BOOK 1528, PAGE 303 OF OFFICIAL RECORDS OF SAN LUIS OBISPO

SUBORDINATED TO : THE RIGHT OF WAY DESCRIBED IN PARAGRAPH 2 OF SCHEDULE "A".

SAID DEED OF TRUST HAS BEEN SUBORDINATED TO THE SUBJECT MATTER REFERRED TO IN THIS PARAGRAPH BY THE PROVISIONS OF AN INSTRUMENT

DATED : JUNE 10, 1969
EXECUTED BY : THE TI CORPORATION, (OF CALIFORNIA), AS TRUSTEE, ET AL

RECORDED : AUGUST 8, 1969 IN REEL 616, PAGE 669 OF OFFICIAL RECORDS OF MONTEREY COUNTY

AND RECORDED : AUGUST 20, 1969 IN BOOK 1528, PAGE 307 OF OFFICIAL RECORDS OF SAN LUIS OBISPO COUNTY

SUBORDINATED TO : THE RIGHT OF WAY HEREINAFTER DESCRIBED IN PARAGRAPH 2 OF SCHEDULE "A".

6. COVENANTS, CONDITIONS AND RESTRICTIONS IN THE DEED
EXECUTED BY : THE HEARST CORPORATION, A DELAWARE CORPORATION
RECORDED : AUGUST 8, 1969 IN REEL 616, PAGE 660 OF OFFICIAL RECORDS OF MONTEREY COUNTY.

AND RECORDED : AUGUST 20, 1969 IN BOOK 1528, PAGE 298 OF OFFICIAL RECORDS OF SAN LUIS OBISPO COUNTY.

7. SUCH LIENS OR ENCUMBRANCES AS MAY HAVE BEEN SUFFERED OR CREATED BY : PACIFIC GAS AND ELECTRIC COMPANY, A CORPORATION.

TO 1012-1-1054-1 C O C C
American Land Title Association Loan Policy
Additional Coverage-1962
or
California Land Title Association
Standard Coverage Policy-1963

SCHEDULE C

The land referred to in this policy is described as follows:

ALL THAT CERTAIN PROPERTY SITUATE IN THE COUNTY OF SAN LUIS OBISPO,
AND THE COUNTY OF MONTEPEY, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

I. LOT 1 AND LOT 2 OF THE NORTHWEST QUARTER OF SECTION 1, TOWNSHIP 25
SOUTH, RANGE 14 EAST, MOUNT DIABLO BASE AND MERIDIAN.

II. SECTION 36, TOWNSHIP 24 SOUTH, RANGE 14 EAST, MOUNT DIABLO BASE
AND MERIDIAN, THE SOUTHWEST QUARTER AND THE SOUTH HALF OF THE SOUTH-
WEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 29, THE SOUTH HALF,
THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER AND THE SOUTH HALF OF
THE NORTHEAST QUARTER OF SECTION 30, AND SECTION 31, TOWNSHIP 24 SOUTH,
RANGE 15 EAST, MOUNT DIABLO BASE AND MERIDIAN.

III. LOT 5 OF SECTION 2, TOWNSHIP 24 SOUTH, RANGE 15 EAST, MOUNT
DIABLO BASE AND MERIDIAN, LOTS 1, 2 AND 3, THE NORTHWEST QUARTER
OF THE NORTHWEST QUARTER, THE WEST HALF OF THE SOUTHEAST QUARTER,
AND THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION
29, AND THAT PORTION OF RANCHO CHOLAME LYING ON THE NORTHWESTERLY
SIDE OF THE LINE WHICH BEGINS AT THE INTERSECTION OF THE SOUTHWES-
TERLY BOUNDARY LINE OF SAID RANCHO WITH THE SOUTHERLY BOUNDARY LINE
OF THE NORTH HALF OF SAID SECTION 29 AND RUNS THENCE NORTHEASTERLY
APPROXIMATELY 153.50 FEET TO THE INTERSECTION OF THE NORTHEASTERLY
BOUNDARY LINE OF SAID RANCHO WITH THE SOUTHERLY BOUNDARY LINE OF
SECTION 14, TOWNSHIP 24 SOUTH, RANGE 15 EAST, MOUNT DIABLO BASE AND
MERIDIAN.

IV. LOT 1, AND LOT 7, AND THE SOUTHEAST QUARTER OF THE NORTHEAST
QUARTER, OF SAID SECTION 2, THE SOUTHEAST QUARTER OF SECTION 35,
AND SECTION 36, TOWNSHIP 23 SOUTH, RANGE 15 EAST, MOUNT DIABLO BASE
AND MERIDIAN.

THE AFORESAID STRIP IS DESCRIBED AS FOLLOWS:

1. A STRIP OF LAND OF THE UNIFORM WIDTH OF 192.5 FEET LYING CONTI-
GUOUS TO AND NORTHWESTERLY OF THE NORTHWESTERLY BOUNDARY LINE OF THE
STRIP OF LAND DESCRIBED AND DESIGNATED 1 IN THE DEED FROM R. E. JACK
CO., TO PACIFIC GAS AND ELECTRIC COMPANY, DATED APRIL 16, 1954 AND
RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY OF SAN
LUIS OBISPO, IN BOOK 756, OF OFFICIAL RECORDS, AT PAGE 334 AND ALSO
RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY OF MON-
TEREY IN BOOK 1530, OF OFFICIAL RECORDS, AT PAGE 547 AND EXTENDING
FROM THE SOUTHERLY BOUNDARY LINE OF LOT 1 OF THE NORTHWEST QUARTER
OF SECTION 1, TOWNSHIP 25 SOUTH, RANGE 14 EAST, MOUNT DIABLO BASE AND
MERIDIAN, NORTHEASTERLY 2840 FEET, MORE OR LESS, TO THE EASTERLY
BOUNDARY LINE OF LOT 2 OF THE NORTHWEST QUARTER OF SAID SECTION 1.

2. THE STRIP OF LAND BOUNDED ON THE SOUTHERLY SIDE BY THE SOUTHERLY
BOUNDARY LINE OF SECTION 36, TOWNSHIP 24 SOUTH, RANGE 14 EAST, MOUNT
DIABLOBASE AND MERIDIAN, BOUNDED ON THE SOUTHEASTERLY SIDE BY THE

• NORTHWESTERLY BOUNDARY LINE OF (A) THE STRIP OF LAND DESCRIBED IN THE DEED FROM JEANNETTE PARKES TO PACIFIC GAS AND ELECTRIC COMPANY DATED APRIL 1, 1954 AND RECORDED IN THE OFFICE OF SAID COUNTY RECORDER, IN BOOK 1522, OF OFFICIAL RECORDS, AT PAGE 419, AND (B) THE STRIP OF LAND DESCRIBED AND DESIGNATED 2 IN SAID DEED DATED APRIL 16, 1954, BOUNDED ON THE NORTHERLY SIDE BY THE NORTHERLY BOUNDARY LINE OF THE SOUTH HALF OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 24 SOUTH, RANGE 15 EAST, MOUNT DIABLO BASE AND MERIDIAN, AND BOUNDED ON THE NORTHWESTERLY SIDE BY A LINE WHICH BEGINS AT A POINT IN THE SOUTHERLY BOUNDARY LINE OF SAID SECTION 36 AND RUNS THENCE NORTH 45° 49' 57" EAST 80 FEET, MORE OR LESS TO A POINT HEREIN FOR CONVENIENCE CALLED POINT "A";
THENCE CONTINUING NORTH 45° 49' 57" EAST 3327.96 FEET; THENCE NORTH 44° 38' 49" EAST 922.73 FEET;
THENCE NORTH 43° 26' 39" EAST 1701.32 FEET;
THENCE NORTH 45° 49' 59" EAST 1123.69 FEET;
THENCE NORTH 46° 58' 39" EAST 4504.09 FEET;
THENCE NORTH 45° 50' 04" EAST 330 FEET, MORE OR LESS, TO A POINT IN THE NORTHERLY BOUNDARY LINE OF THE SOUTH HALF OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 29; SAID POINT "A" BEARS NORTH 89° 56' 28" EAST 3259.04 FEET DISTANT FROM THE 2-INCH IRON PIPE (STAMPED S 152 ESTRELLA RANCH BOUNDARY) MARKING THE NORTHWEST CORNER OF SECTION 1, TOWNSHIP 25 SOUTH, RANGE 14 EAST, MOUNT DIABLO BASE AND MERIDIAN.

x R 3. A STRIP OF LAND OF THE UNIFORM WIDTH OF 192.5 FEET EXTENDING FROM THE EASTERLY BOUNDARY LINE OF LOT 5 OF SECTION 2, TOWNSHIP 24 SOUTH, RANGE 15 EAST, MOUNT DIABLO BASE AND MERIDIAN, SOUTHWESTERLY 27,290 FEET, MORE OR LESS, TO THE SOUTHERLY BOUNDARY LINE OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 24 SOUTH, RANGE 15 EAST, MOUNT DIABLO BASE AND MERIDIAN, AND LYING CONTIGUOUS TO, AND NORTHWESTERLY OF THE NORTHWESTERLY BOUNDARY LINE OF THE STRIP OF LAND DESCRIBED AND DESIGNATED 4 IN SAID DEED DATED APRIL 16, 1954 FOR THE INITIAL 210 FEET, LYING CONTIGUOUS TO AND NORTHWESTERLY OF THE NORTHWESTERLY BOUNDARY LINE OF THE STRIP OF LAND DESCRIBED AND DESIGNATED 5 IN SAID DEED DATED APRIL 16, 1954 FOR THE NEXT 2720 FEET, AND LYING CONTIGUOUS TO AND NORTHWESTERLY OF THE NORTHWESTERLY BOUNDARY LINE OF SAID STRIP OF LAND DESIGNATED 4 FOR THE REMAINING 24,360 FEET; EXCEPTING THEREFROM THE PORTION THEREOF LYING WITHIN THE BOUNDARY LINES OF LOT 4 OF SECTION 20, TOWNSHIP 24 SOUTH, RANGE 15, EAST, MOUNT DIABLO BASE AND MERIDIAN.

4. A STRIP OF LAND OF THE UNIFORM WIDTH OF 192.5 FEET LYING CONTIGUOUS TO AND NORTHWESTERLY OF THE NORTHWESTERLY BOUNDARY LINE OF THE STRIP OF LAND DESCRIBED AND DESIGNATED 6 IN SAID DEED DATED APRIL 16, 1954 AND EXTENDING FROM THE NORTHERLY BOUNDARY LINE OF SECTION 36, TOWNSHIP 23 SOUTH, RANGE 15 EAST, MOUNT DIABLO BASE AND MERIDIAN, SOUTHWESTERLY 7,830 FEET, MORE OR LESS, TO THE WESTERLY BOUNDARY LINE OF LOT 1 OF SECTION 2, TOWNSHIP 24 SOUTH, RANGE 15 EAST, MOUNT DIABLO BASE AND MERIDIAN.

Correct as to
8/6/69

JWA

The total liability of the Company under said policy and any indorsements therein shall not exceed, in the aggregate, the face amount of said policy and costs which the Company is obligated to pay under the conditions and stipulations thereof to pay.

Indorsement is made a part of said policy and is subject to the schedules, conditions and stipulations therein, except as modified by the provisions hereof.



Attachment 3

EIR

County of Monterey

California Flats Solar Project

Final Environmental Impact Report



December 2014

California Flats Solar Project

Final

Environmental Impact Report

Prepared for:
Monterey County Resource Management Agency
Planning Department
168 W. Alisal St., 2nd Floor
Salinas, California 93901

Contacts:
Delinda Robinson, Senior Planner
831-755-5198
John H. Ford, RMA Services Manager
831-755-5158

Prepared by:
Rincon Consultants, Inc.
437 Figueroa Street, Suite 203
Monterey, California 93940

December 2014

This report is printed on recycled paper.

California Flats Solar Project Final Environmental Impact Report

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 - Appendix E.15 2014 Special Status Plant Survey Report
 - Appendix E.16 2012 CRLF Survey Memorandum
 - Appendix E.17 2013 Raptor Nest Survey Report
 - Appendix E.18 2014 Baseline Avian Activity Survey Report
 - Appendix E.19 2012 CTS Site Assessment
 - Appendix E.20 2013 Wet Season Branchiopod Survey Report
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- Appendix N Phase I Environmental Site Assessment
- Appendix O Pacific Gas & Electric Interconnection Facilities Environmental Summary
 - Appendix O.1 California Flats Solar Project Pacific Gas & Electric Interconnection Facilities Environmental Summary Appendix
 - Appendix O.2 PG&E's Avoidance and Protection Measures for Construction of PG&E Facilities Associated with the California Flats Solar Project
 - Appendix O.3 Peer Review of Pacific Gas & Electric Interconnection Facilities Environmental Summary Appendix
- Appendix P Brief Supplement to Comments on the Draft Environmental Impact Report for the Proposed California Flats Solar Project
- Appendix Q California Flats Solar Project Supplemental Hydrology Calculations



1.0 INTRODUCTION

1.1 PURPOSE OF THE EIR PROCESS

This Final Environmental Impact Report (FEIR) is an informational document prepared by the Monterey County Resource Management Agency (RMA) – Planning Department to evaluate the potential environmental impacts of the proposed California Flats Solar Project. The primary objectives of the EIR process under the California Environmental Quality Act (CEQA) are to inform decision-makers and the public about a project’s potential significant environmental effects, identify possible ways to minimize significant effects, and consider reasonable alternatives to the project. This EIR has been prepared with assistance from Monterey County’s planning and environmental consultant, Rincon Consultants, Inc., with additional input from the project applicant team. The FEIR has been reviewed by County staff for completeness and adequacy in accordance with Public Resources Code (PRC) Sections 21000–21177 and the *State CEQA Guidelines*.

As prescribed by the *State CEQA Guidelines* Sections 15088 and 15132, the lead agency, the County of Monterey, is required to evaluate comments on environmental issues received from persons who have reviewed the Draft EIR and to prepare written responses to those comments. This document, together with the DEIR (incorporated by reference in accordance with State CEQA Guidelines Section 15150) will comprise the Final Environmental Impact Report (FEIR) for this project. Pursuant to the requirements of CEQA, the County of Monterey must certify the FEIR as complete and adequate prior to approval of the project or a project alternative.

This FEIR contains individual responses to each written letter received during the public review period for the DEIR. In accordance with *State CEQA Guidelines* Section 15088(b), the written responses describe the disposition of significant environmental issues raised. The Monterey County RMA - Planning Department and its consultants have provided a good faith effort to respond in detail to all significant environmental issues raised by the comments.

1.2 EIR CERTIFICATION PROCESS AND PROJECT APPROVAL

In accordance with the requirements of CEQA and the procedures of Monterey County, the FEIR must be certified as complete and adequate prior to any action on the proposed California Flats Solar Project. Once the EIR is certified and all information considered, using its independent judgment, the County can take action to go forward with the proposed project, make changes, or select an alternative to the proposed project. While the information in the EIR does not control the County’s ultimate decision, Monterey County must respond to each significant effect and mitigation measure identified in the EIR by making findings supporting its decision.



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2.0 RESPONSES to COMMENTS

This section includes the comments received during circulation of the Draft Environmental Impact Report (EIR) for the California Flats Solar Project (Project) and responses to those comments. Where a comment resulted in a change to the DEIR text, a notation is made in the response indicating that the text is revised. Changes in text are signified by strikeouts (~~strikeouts~~) where text is removed and by underlined font (underline font) where text is added. Other minor clarifications and corrections to typographical errors are also shown as corrected in this format, including corrections not based on responses to comments. The information added to the EIR clarifies or amplifies the analysis and conclusions of the Draft EIR. These changes do not introduce significant new information or otherwise affect the analysis or conclusions of the EIR and thus do not require recirculation under State CEQA Guidelines § 15088.5.

The DEIR was circulated for a 47-day public review period that began on August 6, 2014 and ended on September 22, 2014. The County of Monterey (County) received 24 comment letters on the DEIR. The commenters and the page numbers on which each commenter's letters appear (as applicable) are listed below.

| Letter No. | Commenter | Agency/Organization | Page No. |
|-------------------------------------|---|--|----------|
| Agencies | | | |
| 1. | Stephen Bachman, Senior Park & Recreation Specialist | California State Parks | 2-3 |
| 2. | John J. Olejnik, Associate Transportation Planner | California Department of Transportation | 2-9 |
| 3. | Jeffrey R. Single, Regional Manager | California Department of Fish and Wildlife | 2-12 |
| 4. | Amy Clymo, Supervising Air Quality Planner | Monterey Bay Unified Air Pollution Control District | 2-24 |
| 5. | Teresa Taylor, Superintendent | Shandon Joint Unified School District | 2-42 |
| 6. | Christopher E. Browder, Deputy Chief, Environmental Protection | California Department of Forestry and Fire Protection | 2-45 |
| 7. | Michael Horowitz, Senior Safety Engineer/Industrial Hygienist | California Department of Industrial Relations, Division of Occupational Safety and Health | 2-51 |
| 8. | Rob Fitzroy, Project Manager | San Luis Obispo County Department of Planning and Building | 2-58 |
| 9. | Andy Mutziger, Air Quality Specialist | San Luis Obispo County Air Pollution Control District | 2-60 |
| 10. | Lisa Mangione, Regulatory Project Manager | U.S. Army Corps of Engineers | 2-70 |
| Organizations and Businesses | | | |
| 11. | Kristin Cushman, Executive Director | The Offset Project | 2-73 |
| 12. | Laura E. Horton | Adams Broadwell Joseph & Cardozo | 2-76 |
| 13. | Robert Hale, Conservation Chair, Monterey Bay Chapter | California Native Plant Society | 2-390 |
| 14. | Don Romeka, CEO | Extreme Impact, Inc. | 2-398 |
| 15. | Kim Delfino, Greg Suba, Garry George, Illeene Anderson, Blake Matheson, Rita Delassio | Defenders of Wildlife, California Native Plant Society, Audubon California, Center for Biological Diversity, Monterey Audubon, Sierra Club Ventana Chapter | 2-400 |
| 16. | Koryn Kendall, Manager, Project Development | First Solar | 2-430 |
| 17. | Greg Parker, Principal Land Planner, Environmental Planning and Permitting | Pacific Gas and Electric Company | 2-643 |



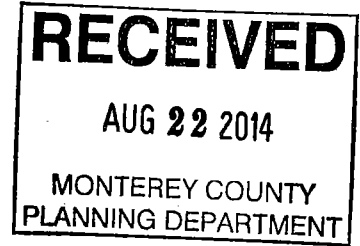
| Letter No. | Commenter | Agency/Organization | Page No. |
|-------------------|----------------------------|----------------------------|-----------------|
| Public | | | |
| 18. | W.J. Van Boxtel | Public | 2-650 |
| 19. | Jane Wooster and Ann Myhre | Public | 2-700 |
| 20. | Ann Gaglioti | Public | 2-714 |
| 21. | Cameron Hunter | Public | 2-717 |
| 22. | Holly Temple | Public | 2-720 |
| 23. | Kathleen D. Lambeth | Public | 2-722 |
| 24. | Tristan James Mabry | Public | 2-726 |

The comment letters and the County’s responses follow. Each comment letter has been numbered sequentially and each separate issue raised by the commenter, if more than one, has also been assigned a number. The responses to each comment identify first the number of the comment letter, and then the number assigned to each issue (Response 2.1, for example, indicates that the response is for the first issue raised in Comment Letter 2). Also, responses that include a letter refer to the attachment included with a comment letter (Response 12.A.1, for example, refers to the first issue raised in Attachment A of Comment Letter 12).



Gonzales, Eva x5186

From: Bachman, Stephen@Parks [Stephen.Bachman@parks.ca.gov]
Sent: Friday, August 22, 2014 1:02 PM
To: Robinson, Delinda x5198
Subject: RE: California Flats Solar Project - PLN120294



Thank you ☺

We have no comments, its not close to a state park. Thanks again.

1.1

Stephen Bachman

Senior Park & Recreation Specialist
Senior Environmental Scientist
2211 Garden Road
Monterey, CA 93940
Phone (831) 649-2862
Cell (831) 647- 6239
Cell (831) 277-3037

Stephen.bachman@parks.ca.gov



State Parks Mission Statement

The mission of California State Parks is to provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation.

This communication (including any attachments) may contain privileged or confidential information intended for a specific individual and purpose, and is protected by law. If you are not the intended recipient, you should delete this communication and/or shred the materials and any attachments and are hereby notified that any disclosure, copying, or distribution of this communication, or the taking of any action based on it, is strictly prohibited.

From: Robinson, Delinda x5198 [<mailto:robinsond@co.monterey.ca.us>]
Sent: Friday, August 22, 2014 12:58 PM
To: Bachman, Stephen@Parks
Subject: California Flats Solar Project - PLN120294

Hi Steve –

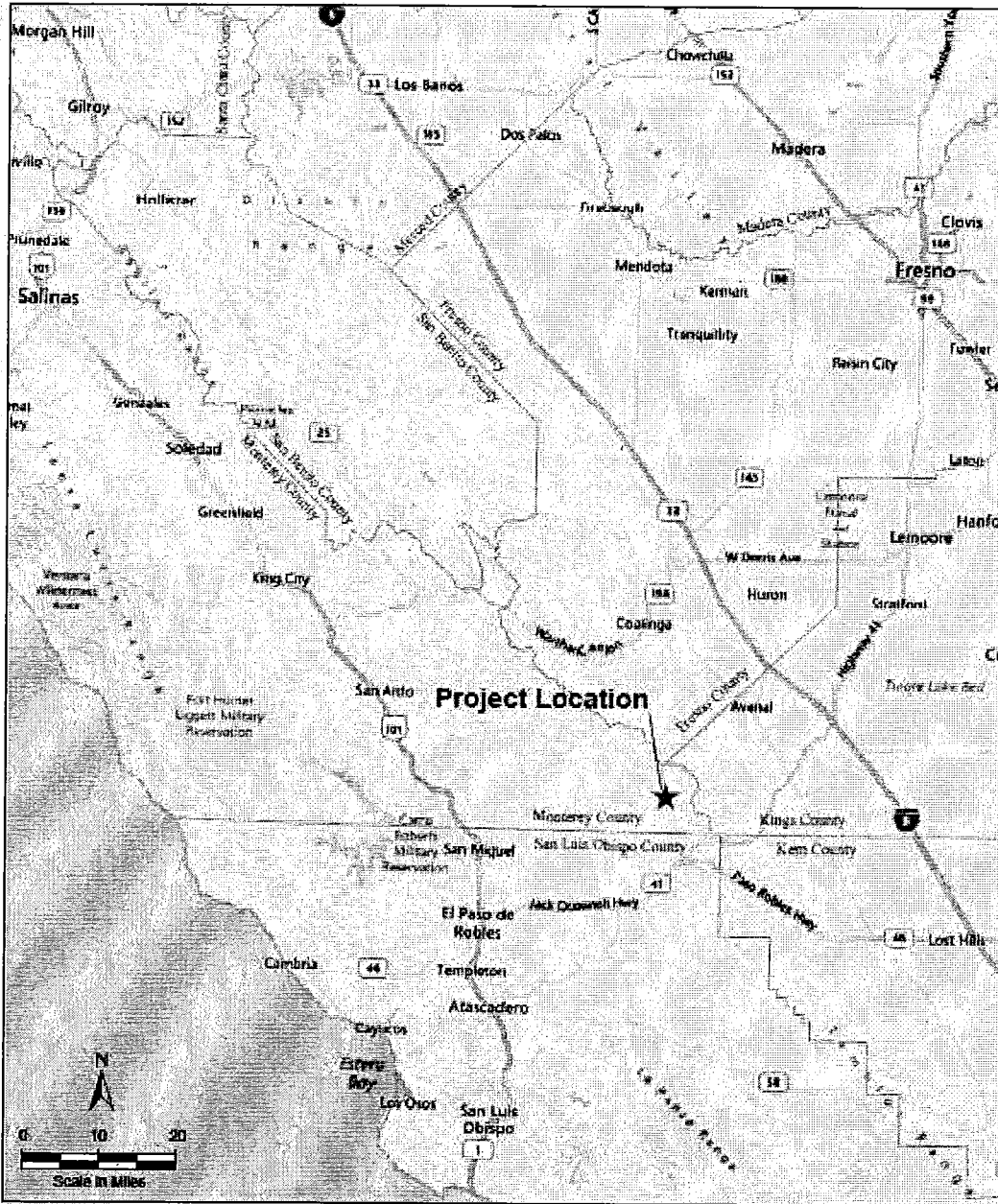
I've attached a vicinity map that shows where the California Flats Solar project will be located. The maps below are screen shots of the vicinity map figures from the DEIR. The big view is Figure 2-1, Figure 2-2 zooms in a bit and then the one I attached is the County's base map showing the parcels involved. It's southeast of Parkfield in the southeastern

corner of Monterey County. The primary access will be from a private ranch road off of Hwy 41 in San Luis Obispo County. It's miles up a private road in the middle of a big ranch. Here's a link to the webpage with the EIR if you want to look in more detail:

http://www.co.monterey.ca.us/Planning/major/California%20Flats%20Solar/California_Flats_Solar.htm

Thanks for calling. If you have any more questions, don't hesitate to call or e-mail.

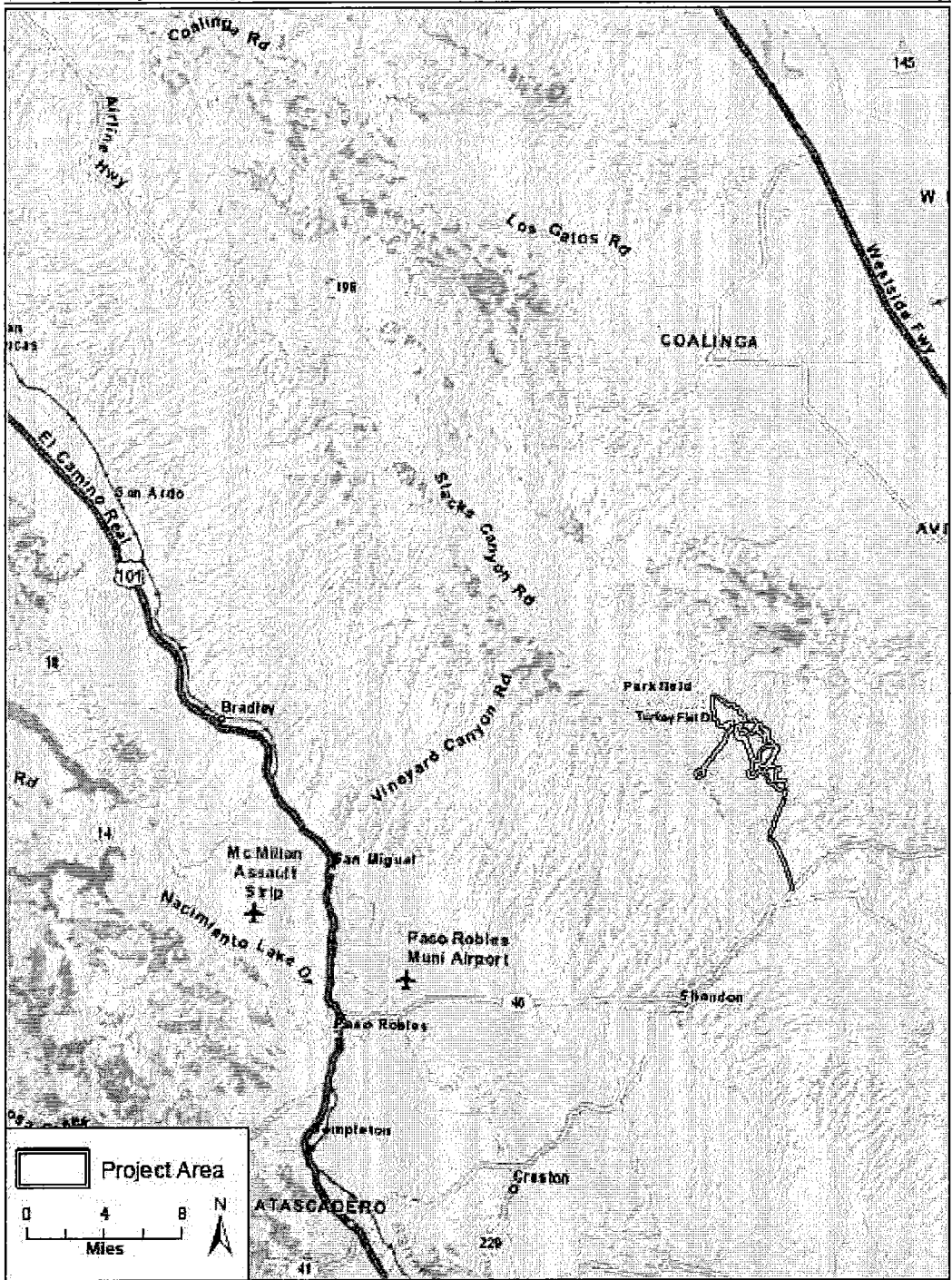
Delinda Robinson
Senior Planner
(831) 755-5198



Base map source: Denise Ditty and Associates, 2012.

Project Location

Figure 2-1
 County of Monterey



Imagery provided by ESRI and its licensors © 2014.

Vicinity Map

Figure 2-2

Delinda Robinson
 Senior Planner
 Monterey County RMA-Planning Department
 168 West Alisal Street, Second Floor

Salinas, CA 93901
(831) 755-5198

Website: www.co.monterey.ca.us/planning

To access our permit database, please go to: <https://aca.accela.com/monterey/Default.aspx>

Letter 1

COMMENTER: Stephen Bachman, Senior Park & Recreation Specialist, California State Parks

DATE: August 22, 2014

Response 1.1

The commenter states that they have no comments on the DEIR. The comment is noted.



DEPARTMENT OF TRANSPORTATION

50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
<http://www.dot.ca.gov/dist05/>

Letter 2



*Serious drought
Help save water!*

September 8, 2014

MON/SLO 41.44.87
SCH# 2013041031

Delinda Robinson
Monterey County Planning Department
168 West Alisal, 2nd Floor
Salinas, CA 93901

Dear Ms. Robinson:

COMMENTS TO CALIFORNIA FLATS SOLAR PROJECT ACCESS IMPROVEMENTS

The California Department of Transportation (Caltrans), District 5, Development Review, has reviewed the above referenced project and offers the following comments as it relates to design features of transportation improvements required for the access to the project site.

- 1. The analysis states that during the Friday peak hour, traffic control measures will be put in place to prevent project-generated trips leaving the site from making right turn (south) movements on State Route (SR) 41. Vehicles will be directed to make left turn movements north. Caltrans has stated in the past and continues to require that an acceleration/receiving lane be constructed to accommodate this movement. 2.1
- 2. The left and right turn storage lanes required for project access have been preliminarily designed at 530 feet. However, the required length for deceleration lanes should be 530 feet plus storage for a 25 foot vehicle and a 75 foot truck. This would increase the total storage length required to 630 feet. (Highway Design Manual 405.2.2e, Page 400-11) 2.2
- 3. Any work within the State right-of-way will require an encroachment permit issued from Caltrans. Detailed information such as complete drawings, biological and cultural resource findings, hydraulic calculations, environmental reports, traffic study, etc., may need to be submitted as part of the encroachment permit process. 2.3

If you have any questions, or need further clarification on items discussed above, please don't hesitate to call me at (805) 542-4751.

Sincerely,

JOHN J. OLEJNIK
Associate Transportation Planner
District 5 Development Review Coordinator
john.olejnik@dot.ca.gov

cc: Rob Fitzroy (SLO County)

Letter 2

COMMENTER: John J. Olejnik, Associate Transportation Planner, California Department of Transportation

DATE: September 8, 2014

Response 2.1

The commenter recommends that an acceleration/receiving lane be constructed to accommodate project-generated trips leaving the site making left turn movements north. In response to this comment, Mitigation Measure T-2 in Section 4.13, *Transportation/Traffic*, has been revised as follows:

T-2 Friday Peak Hour Control Measures – Construction Phase. All project generated traffic bound for SR 46 eastbound that would make the southbound left turn movement at the intersection of SR 41/SR 46 shall be removed by implementing traffic control measures at the project access road exit during the Friday PM peak hour between 4:35 PM and 5:35 PM. Truck delivery and construction workers bound for eastbound SR 46 shall be prohibited from making right turns from the project access road onto SR 41 by a flagman located at the project access road during the Friday PM peak hour. Vehicle destinations shall be identified by vehicle badges. The flagman shall identify these vehicles and direct them to make an eastbound left out movement from the project access road onto SR 41 east. An acceleration/receiving lane shall be constructed to accommodate this movement, in accordance with Caltrans requirements.

Significance After Mitigation. The removal of project generated trips destined for SR 46 east would divert all project trips from the southbound right turn movement and ultimately from the eastbound SR 46 during the Friday PM Peak Hour. The construction of an acceleration/receiving lane to accommodate left out movement from the project access road onto SR 41 east would occur entirely within the existing Caltrans right-of-way, and would be subject to a Caltrans encroachment permit. Impacts would be reduced to a less than significant level.

Response 2.2

The commenter notes that the left and right turn storage lanes required for project access should be 630 feet in length, rather than 530 feet. A conceptual layout of the proposed access road entrance and associated turn lanes improvements is shown in Figure 4.13-3. This layout is conceptual, and final design will require a Caltrans encroachment permit. The requirement for additional storage length will be incorporated into the final design.

It should be noted that this improvement would occur entirely within the SR 41 right-of-way, and therefore would not generate additional environmental impacts.



Response 2.3

The commenter notes that any work within the State right-of-way will require an encroachment permit from Caltrans. The commenter further notes that detailed information such as drawings, biological and cultural resource findings, hydraulic calculations, environmental reports, traffic study, etc. may need to be submitted as part of this process. Section 2.10 (Required Approvals and Permits) in Section 2.0, *Project Description*, lists an encroachment permit from as one of the discretionary approvals that may be required for the project.





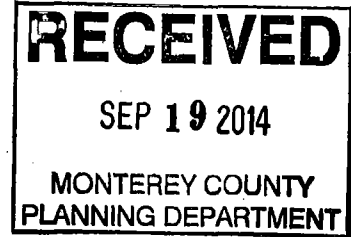
State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005
www.wildlife.ca.gov

EDMUND G. BROWN, JR., Governor
CHARLTON H. BONHAM, Director



September 19, 2014

Delinda Robinson
County of Monterey Resource Management Agency
Planning Department
168 West Alisal Street, 2nd Floor
Salinas, California 93901



**Subject: Draft Environmental Impact Report (DEIR)
California Flats Solar Project
SCH No. 2013041031**

Dear Ms. Robinson:

The California Department of Fish and Wildlife (Department) has reviewed the DEIR submitted by the County of Monterey Resource Management Agency (County) for the California Flats Solar Project (Project) located in the southeastern corner of Monterey County; approximately 7 miles southeast of the community of Parkfield and 25 miles northeast of the City of Paso Robles, near the borders of Monterey, San Luis Obispo, Kings and Fresno counties. Project approval would allow the construction, operation, and eventual decommissioning of a 280-megawatt photovoltaic (PV) solar power facility on an approximately 3,000-acre portion of an existing 72,000-acre cattle ranch known as Jack Ranch. The 3,000-acre Project site includes the following: 2,120 acres for the solar facility; 135 acres for an existing 230-kilo-volt Morro Bay-Gates transmission line corridor; 155 acres for a new utility corridor; a 5-acre, high-capacity, collection system line corridor; two substations six acres each in size; a 6-acre Pacific Gas and Electric Company switching station; an operations and maintenance facility; improvements to an existing access road covering approximately 60 acres; and temporary construction staging/laydown areas. The Project also includes installation of security lighting, security fencing, and water infrastructure. Primary vehicle access to the Project site is off of California State Route 41 (Highway 41), by way of an existing 5.6-mile dirt road that will be improved (60-acre access road).

3.1

In a letter dated May 16, 2013, the Department provided comments on the Notice of Preparation of a DEIR for the Project. In that previous letter, the Department recommended that the County include the results of all field surveys in the DEIR and use them as biological baselines in the DEIR when analyzing Project-specific and cumulative impacts, including impacts to population connectivity and movement, for species with the potential to be impacted through implementation of the Project including, but not limited to, the following: San Joaquin kit fox (*Vulpes macrotis mutica*, SJKF), which is listed as threatened under the California Endangered Species Act (CESA) and endangered under the federal Endangered Species Act (ESA); California tiger salamander (*Ambystoma californiense*, CTS), which is listed as threatened under CESA and ESA; golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*), both

3.2

of which are State fully protected species; California condor (*Gymnogyps californianus*), which is listed as endangered under CESA and ESA and is a State fully protected species; California red-legged frog (*Rana aurora draytonii*, CRLF), which is listed as threatened under ESA and is a State Species of Special Concern; Swainson's hawk (*Buteo swainsoni*, SWHA), which is listed as threatened under CESA; burrowing owl (*Athene cunicularia*, BUOW), western pond turtle (*Emys marmorata*), coast horned lizard (*Phrynosoma blainvillii*), San Joaquin whipsnake (*Masticophis flagellum*), and American badger (*Taxidea taxus*), all of which are State Species of Special Concern; and a variety of native plants, both listed under CESA and/or ESA or otherwise considered special-status. Adobe navarretia (*Navarretia nigelliformis* ssp. *Nigelliformis*), Hogwallow starfish (*Hesperrevax caulescens*), and round-leaved filaree (*California macrophylla*) were observed on the Project site during surveys conducted for the Preliminary Biotic Report.

3.2

The DEIR includes a variety of mitigation measures with the intent of reducing potentially significant impacts on biological resources to less than significant levels. The Department has reviewed the proposed mitigation measures included in the DEIR and has the following recommendations to improve their effectiveness. The Department recommends the County revise the following mitigation measures for the Final Environmental Impact Report as follows:

3.3

For all mitigation measures required for biological resources, the Department recommends the County include a requirement for the Project proponent to submit all survey reports and plans to the Department for review no less than 14 days before starting Project-related activities.

3.4

Mitigation Measures B-1(b) through B-1(e) provide for the protection of special-status plant species. However, there is no proposal of minimizing impacts to special-status plant species on the Project site. The Department recommends the County include an additional Mitigation Measure to require that before Project-related activities commence and once on-site special-status plants go to seed that the ground be scraped to collect the seeds and duff that will then be redistributed on compensatory lands. A qualified botanist shall determine the most suitable locations for the duff to be distributed on the compensatory lands, which may include but not be limited to creation of "wetland" depressions for those plants associated with wetlands, seeps, vernal pools or clay soils and determining correct soil types or topographic aspect to support each plant species. The Department does not recommend scraping of soils in vernal pools that contain federally listed invertebrates unless permitted to do so by the United States Fish and Wildlife Service (USFWS). See also B-2(b), these recommendations can be applied to the off-site mitigation lands for impacts to special-status plant species.

3.5

Mitigation Measure B-1(g), the fourth paragraph, allows for construction fencing to be installed around potential dens. The Department recommends the County modify this requirement to require that the fencing be installed in such a manner to allow movement of badger from inside the fencing to outside the fencing and vice versa. Alternatively, the Project proponent may install fencing around the area of Project activities, but not including potential badger dens, that will exclude badger from the area where Project activities are occurring.

3.6

| | |
|---|------|
| <p>Mitigation Measure B-1(i) provides avoidance and minimization measures for SJKF. When determining whether or not a potential SJKF den is occupied, the Department recommends the County increase the camera monitoring time from three days to five consecutive days. In-field observations and the USFWS indicate that SJKF may not emerge from dens until day four when there is a pregnant female occupying the den or when pups are newly born. Therefore, the Department recommends the monitoring of potentially occupied dens be increased to five consecutive days to determine use.</p> | 3.7 |
| <p>Mitigation Measure B-1(k) requires the removal of wildlife carcasses by an individual in possession of appropriate federal and state permits, if any are required. The Department recommends the County include additional language in this Mitigation Measure requiring that any individual that will remove and dispose of native California wildlife species will be in possession of a state scientific collecting permit pursuant to Fish and Game Code section 2081.</p> | 3.8 |
| <p>Mitigation Measure B-1(m) 1. uses language from outdated guidance for burrowing owl protection. The Department recommends the Project proponent follow the guidance recommendations provided in the more recent Staff Report on Burrowing Owl Mitigation (DFG 2012). The Department recommends the County remove the outdated guidance language starting from "...unless a qualified biologist and ending at ...capable of independent survival." The Department recommends the County modify the language in the following two sentences to read, "Owls present after 1 February shall be assumed to be nesting. Nest protection buffers described below shall remain in effect until 31 August or all juvenile owls are observed foraging independently, whichever is later, as determined by a qualified biologist."</p> | 3.9 |
| <p>Mitigation Measure B-1(m) 2. allows for buffer modifications by a qualified ornithologist based on Project activities, intensity of activities, etc. The Department recommends the County require that buffer modifications be developed in consultation with the Department.</p> | 3.10 |
| <p>Mitigation Measure B-1(m) 3. requires that a Burrowing Owl Exclusion Plan be prepared and submitted to the Department and the County for review and approval by the County. The Department recommends that the County include the Department as part of the approval process.</p> | 3.11 |
| <p>Mitigation Measure B-1(p) requires wildlife-friendly fencing design by incorporating 4-inch by 4-inch openings along the bottom of the fence spaced no more than 500 feet apart. The Department does not concur that this fencing design is appropriate for SJKF to escape traffic or predators quickly if they perceive the fencing to be a solid barrier with the opening so widely spaced. The Department recommends the County modify the language in this Mitigation Measure to require that perimeter fencing be either standard deer fencing installed so that the larger openings occur at the bottom or chain link fencing with the bottom edge raised 5 to 7 inches above the ground for the entire length, which will allow for unimpeded movement of SJKF through the Project site.</p> | 3.12 |
| <p>Mitigation Measure B-1(r) requires pre-construction surveys be completed for raptors and other special-status bird species. This Mitigation Measure requires the Project site plus a 1 mile</p> | 3.13 |

buffer be used for golden eagle and that all other bird species shall be searched for on the Project site and within a 300 foot buffer. The Department recommends that the County modify this Mitigation Measure by requiring surveys for fully protect species, such as white-tail kite or bald eagle or State-listed species, such as SWHA be conducted on the Project site and within ½ mile of the Project site. The Department also recommends the County increase the no-disturbance buffers around active nests of fully protected or state listed species to ½ mile. If this no-disturbance buffer is infeasible for State-listed species, consultation with the Department is warranted to discuss how the Project may be implemented to avoid "take." If take cannot be avoided, an ITP would be necessary to comply with CESA.

3.13

Mitigation Measure B-1(w) allows for the relocation of CTS and CRLF from the impact areas of the Project site. These species are listed under CESA and/or ESA. The capture and movement of any species listed under CESA would require an Incidental Take Permit (ITP) from the Department, as capture (or attempt to do so) is defined as take under Fish and Game Code Section 86. In addition, if CTS are observed within exclusion fencing, CDFW may consider the individuals captured. The Department recommends the County include additional language in this Mitigation measure to require that the Project proponent obtain take authorization from the Department and/or USFWS before conducting any barrier fencing installation or species collection or relocation activities.

3.14

Mitigation Measure B-1(cc) requires compensatory mitigation for CTS. The Project proponent should be made aware that the compensatory measures provided in the DEIR may differ from that required in a state ITP.

3.15

Mitigation measure B-1(dd) requires mitigation for impacts to vernal pool occupied by branchiopods. The Department has a no-net-loss policy for wetlands, including vernal pools whether or not they are occupied by branchiopods. As such, the Department recommends the County include additional language in this Mitigation Measure to require compensation for all direct or indirect impacts to all wetlands identified on the Project site or within 250 feet of the Project site.

3.16

Mitigation Measure B-1(ff) 7. requires excavations, holes, or trenches to be covered or outfitted with escape ramps to prevent entrapment of wildlife. Because pronghorn are known in the vicinity of the Project site, the Department recommends the County include additional language in this Mitigation Measure to prevent entrapment of newly born pronghorn. The Department recommends the County prohibit the creation of excavations and trenches two feet deep or greater during the month of May when the young are on the move, but too small and weak to extricate themselves from a deep excavation or trench.

3.17

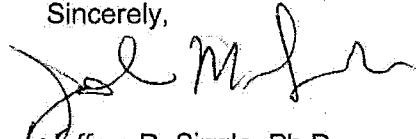
Mitigation Measures B-2(e) through B-2(h) provide protection measures for riparian vegetation and stream resources. The Department would like to make the Project proponent aware that any alteration to any stream bed, bank, or channel or associated vegetation would warrant obtaining a Lake or Streambed Alteration Agreement pursuant to Fish and Game Code sections 1600 et seq. from the Department before starting any work that may impact a Department jurisdictional feature.

3.18

Delinda Robinson
September 19, 2014
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Thank you for providing the Department the opportunity to comment on the California Flats Solar Project DIER. If you have any questions regarding these comments, please contact Lisa Gymer, Senior Environmental Scientist (Specialist) at (559) 243-4014, extension 238, or Lisa.Gymer@wildlife.ca.gov.

Sincerely,



Jeffrey R. Single, Ph.D.
Regional Manager

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Letter 3

COMMENTER: Jeffrey R. Single, Ph.D., Regional Manager, California Department of Fish and Wildlife

DATE: September 19, 2014

Response 3.1

The commenter states that the California Department of Fish and Wildlife (CDFW) has reviewed the DEIR and provides a summary of the proposed project. The comment is noted.

Response 3.2

The commenter states that CDFW submitted a letter on May 16, 2013 which provided comments on the Notice of Preparation (NOP) of the DEIR. The commenter summarizes the letter which recommended that the County include the results of all field surveys in the DEIR and use them as biological baselines when analyzing project-specific and cumulative impacts. The results of all biological surveys and studies completed to date were presented in the DEIR, and potential impacts to each species identified in the CDFW NOP comment letter were addressed accordingly.

Response 3.3

The commenter states that CDFW has reviewed the proposed mitigation measures included in the DEIR and states that they have provided recommendations to improve the effectiveness of the proposed mitigation measures. The commenter recommends that the County revise the mitigation measures for the Final EIR. These recommendations are discussed in subsequent comments and responses in this letter.

Response 3.4

The commenter recommends that for all mitigation measures required for biological resources, the County include a requirement for the project proponent to submit all survey reports and plans to CDFW for review no less than 14 days before starting project-related activities. The DEIR included required reporting on biological mitigation activity be submitted to the County for CEQA-level impacts, to CDFW for potential impacts to state listed and fully protected species, and to the USFWS for federally listed species. Should a state incidental take permit (ITP) be required of the applicant, the County assumes that the ITP will include any specific reporting requirements for state listed species. Mitigation Measure B-1(r) in Section 4.4, *Biological Resources*, of the DEIR has been revised as follows:

Mitigation Timing: The applicant shall submit documentation to the County that either no raptors or other special status birds were recorded on the project site, or that appropriate avoidance measures have been implemented to ensure avoidance of impacts to raptors and other special status birds prior to ~~issuance of grading permits~~ the start of construction activity. If results of the preconstruction surveys for raptors or other special status birds identify any state listed or state



fully protected species, a preconstruction survey report shall also be provided to CDFW prior to the start of construction.

Response 3.5

The commenter states that Mitigation Measures B-1(b) through B-1(e) do not include a proposal to minimize impacts to special-status plant species on the project site. The commenter recommends that the County include an additional mitigation measure to require that before project-related activities commence and once on-site special-status plants go to seed that the ground be scraped to collect the seeds and duff that will then be redistributed on compensatory lands. Mitigation Measure B-1(d) provides avoidance and minimization measures for special status plants. This measure was revised for clarity as follows:

Impacts to all other (CRPR 1B and 4) special status plant species shall be avoided or minimized to the greatest extent feasible.

Visible delineation markers shall be required where special status plants to be avoided occur within 50 feet of general Project construction access areas and array installation, or within 100 feet of grading.

Because grading is not proposed over the majority of project site where solar panels would be developed, scraping of the entire project site could result in a significant impact to plants and wildlife. Furthermore the collection and storage of duff from an approximately 3,000-acre project site would not be feasible. However, if grading activity on portions of the project site associated with project infrastructure were to occur in areas where special status plants have been recorded, scraping and collection of duff in these areas would be feasible. Mitigation Measure B-1(e) in Section 4.4, *Biological Resources*, of the DEIR has been revised to add the following:

If compensatory mitigation for special status plants involves restoration, then the applicant shall scrape and collect topsoil and/or duff from permanent impact areas that support rare plants as feasible, to be used in compensatory mitigation site restoration. Alternatively, seed may also be collected from permanent impact areas that support rare plants. Before project-related activities commence and once on-site special status plants go to seed, areas of proposed site grading where special status plants have been recorded shall be scraped to collect the seeds and topsoil/duff for redistribution on compensatory lands. A qualified botanist shall determine the most suitable locations for the topsoil/duff to be distributed on the compensatory lands, which may include but not be limited to creation of "wetland" depressions for those plants associated with wetlands, seeps, vernal pools or mesic sites with clay soils, and determining correct soil types or topographic aspect to support each plant species. Scraping shall not be conducted for soils in vernal pools that could contain federally listed invertebrates, unless permitted to do so by the United States Fish and Wildlife Service (USFWS).

Note that additional revisions to Mitigation Measure B-1(e) were made for clarity; see also responses 12.A.45, 12.A.60, and 12.A.61 regarding special status plant impacts and mitigation.



Response 3.6

The commenter recommends that the County modify Mitigation Measure B-1(g) to require that construction fencing be installed in such a manner as to allow movement of badger from inside the fencing to outside and vice versa, or to install fencing around the area of project activities, but not including potential badger dens, that would exclude badger from the area where project activities are occurring. Mitigation Measure B-1(g) in Section 4.4, *Biological Resources*, of the DEIR has been revised as follows:

If a potential den is located outside of the disturbance footprint but within 500 feet of ground disturbing activities (including staging areas), the dens shall be avoided by installation of highly visible orange construction fencing a minimum of 100 feet around the den, designating the area an ESA. If the den is to be completely enclosed by fencing, the fencing must be installed in a manner that allows badger to move through the fencing at will, as determined by a qualified biologist.

Response 3.7

The commenter recommends that the County modify Mitigation Measure B-1(i) to increase the monitoring of potentially occupied San Joaquin kit fox dens from three days to five consecutive days. The County recognizes that CDFW (along with USFWS) has authorization over the federally and state listed San Joaquin kit fox and as such accepts the recommendations of a five-day monitoring period for potentially occupied San Joaquin kit fox dens, and Mitigation Measure B-1(i) in Section 4.4, *Biological Resources*, of the DEIR has been revised as follows:

Dens with proper dimensions but no obvious sign will require further investigation. A remote motion-sensing camera will be deployed for at least ~~3~~five (5) days to document whether the hole is being used by kit fox. If, after ~~3~~five days, no kit foxes are detected and the hole has remained unchanged (no new tracks or excavations are observed), the den will be deemed unoccupied. The den will be considered occupied if a kit fox is photographed using the den frequently or if recent sign is found.

Response 3.8

The commenter recommends that the County modify Mitigation Measure B-1(k) to require that any individual that will remove and dispose of native California wildlife species be in possession of a state scientific collecting permit pursuant to Fish and Game Code section 2081. The County notes that the language as written would include a state scientific collecting permit; however, for clarification, Mitigation Measure B-1(k) in Section 4.4, *Biological Resources*, of the DEIR has been revised as follows:

The removal and disposal shall be conducted by an individual in possession of appropriate federal and state permits, if any are required, including but not necessarily limited to a state scientific collection permit pursuant to Fish and Game Code Section 2081.



Response 3.9

The commenter states that Mitigation Measure B-1(m) uses language from outdated guidance for burrowing owl protection and recommends that the project proponent follow the guidance recommendations provided in the more recent Staff Report on Burrowing Owl Mitigation (DFG, 2012). The Staff Report on Burrowing Owl Mitigation states the following: "Owls present after 1 February shall be assumed to be nesting. Nest protection buffers described below shall remain in effect until 31 August or all juvenile owls are observed foraging independently, whichever is later, as determined by a qualified biologist." The proposed revisions would result in a blanket assumption of breeding activity at all burrows, and would therefore not provide for a reasonable analysis of burrow activity based on verifiable field observations. In response to this comment, Mitigation Measure B-1(m) in Section 4.4, *Biological Resources*, of the DEIR has been revised as follows:

Occupied burrows shall not be disturbed during the nesting season (1 February through 31 August) unless a qualified biologist verifies, through noninvasive methods, that either (1) ~~the birds have not begun egg-laying and incubation~~ burrow is not being used for breeding, (2) a previously active nest has failed and ~~the burrow is no longer active-re-nesting is highly unlikely~~, or (3) all juveniles from the occupied burrow are foraging independently and capable of independent survival and the burrow is no longer an active nest burrow. Owls present after 1 February shall be assumed to be nesting unless evidence indicates otherwise. Nest-protection buffers described below shall remain in effect until 31 August or, based upon monitoring evidence, until the nest has failed or all juvenile owls are foraging independently as determined by a qualified biologist.

Response 3.10

The commenter recommends that the County modify Mitigation Measure B-1(m) to require that buffer modifications be developed in consultation with CDFW. The DEIR included language about consultation with CDFW on buffer reduction, which has clarified as follows:

The appropriateness of using reduced buffer distances or burrow-specific buffer distances shall be established on a case-by-case basis by a qualified ornithologist ~~who may consult in consultation~~ with CDFW, and shall depend on existing conditions (e.g., vegetation/topographic screening and current disturbance regimes).

Response 3.11

The commenter recommends that the County modify Mitigation Measure B-1(m) to include CDFW as part of the approval process for the Burrowing Owl Exclusion Plan. The intention of this measure was to have CDFW involved in the review and approval of any Burrowing Owl Exclusion Plan. To clarify, Mitigation Measure B-1(m) in Section 4.4, *Biological Resources*, has been revised as follows:



The Burrowing Owl Exclusion Plan shall be submitted for review and approval to the CDFW and County ~~for review and approved by the County~~ prior to implementation.

Response 3.12

The commenter argues that the wildlife-friendly fencing described in Mitigation Measure B-1(p) is not appropriate for San Joaquin kit fox to escape traffic or predators and recommends revised fencing standards. CDFW concerns that the proposed wildlife friendly fence design may not be sufficient to allow for kit fox to escape traffic or predators are noted, and the County accepts CDFW's recommendation on mitigation for this state and federally listed species. As a result, Mitigation Measure B-1(p) in Section 4.4, *Biological Resources*, has been revised as follows:

The fencing around the perimeter of the project site and SDAs shall be designed to allow passage by SJKF, American badger, and their prey species, by incorporating either standard deer fencing installed so that the larger openings occur at the bottom or chain link fencing with the bottom edge raised five to seven inches above the ground for the entire length of the fence, to allow for unimpeded movement of SJKF and American badger through the site. ~~openings in the perimeter fence that are a minimum of 4 inch by 4 inch for SJKF, with additional 6 inch by 7 inch openings to allow permeability by American badgers. The opening should be located at least every 500 feet along the perimeter fence.~~ Interior fencing may be designed such that it is installed four to five inches above ground.

Response 3.13

The commenter recommends modifications to survey and no-disturbance buffers for fully protected species, such as white-tailed kite or bald eagle or State-listed species, such as Swainson's hawk, in Mitigation Measure B-1(r), and specifies conditions that may require CDFW consultation for "take" avoidance. The County understands that CDFW has authority over state listed and fully protected species, and as such accepts CDFW's recommendations for survey and avoidance buffers of fully protected species and Swainson's hawks. Mitigation Measure B-1(r) in Section 4.4, *Biological Resources*, of the DEIR has therefore been revised as follows:

If active nests (nests with eggs or chicks) are located, the qualified biologist shall establish an appropriate avoidance buffer ranging from 50 to 300 feet based on the species biology and the current and anticipated disturbance levels occurring in vicinity of the nest, and 0.5 mile for fully protected and state-listed raptors (such as white-tailed kite, bald eagle and Swainson's hawk).

Response 3.14

The commenter notes that relocation of California tiger salamander and California red-legged frog which are listed under the California Endangered Species Act and/or Federal Endangered Species Act would require an incidental take permit from CDFW, identifies conditions that would be considered "take" by CDFW and recommends revisions to require take authorization. The County has required take authorization for any activity that would result in take of state or federally listed



species (including the relocation of CTS and CRLF). This is specified in Mitigation Measure B-1(ee) for construction biological monitoring. For clarification, Mitigation Measure B-1(w) in Section 4.4, *Biological Resources*, of the DEIR has also been revised as follows:

B-1(w) California Tiger Salamander and California Red-Legged Frog Relocation Sites. Prior to the initiation of any other protective measures, a qualified biologist (i.e., biologist approved by USFWS and/or CDFW to translocate CTS and CRLF) shall, in consultation with USFWS and/or CDFW as applicable, identify appropriate relocation sites for any adult, juvenile, and larval CTS and CRLF that may be observed during the pre-construction survey or monitoring activities described below and need to be moved from within the limits of direct impact disturbance. Relocation or other take (e.g. entrapment) of CTS and CRLF can only be conducted by an authorized biologist and the project must have been issued the requisite take authorizations from CDFW and USFWS before any relocation activity can commence.

Response 3.15

The commenter notes that Mitigation Measure B-1(cc) requires compensatory mitigation for California tiger salamander and that the project proponent should be made aware that the compensatory measures provided in the DEIR may differ from that required in a state incidental take permit. The compensatory mitigation measures included in the DEIR are intended to provide standards for compensatory mitigation under CEQA. Conditions in state take authorization(s) may include different or additional measures, including compensatory mitigation measures. The goal in providing a compensatory mitigation measure for CTS within the DEIR was to ensure mitigation was not deferred, while also minimizing the potential for including measures that could contradict conditions that may be included under state authorization for take of CTS.

Response 3.16

The commenter notes that CDFW has a no-net-loss policy for wetlands (including vernal pools) and recommends that the County modify Mitigation Measure B-1(dd) to require compensation for all direct or indirect impacts to all wetlands identified on the project site or within 250 feet of the project site. Potential impacts to wetlands are identified in Impact B-3 of the DEIR, and wetland habitat mitigation measures are required to compensate for permanent impacts to wetland habitat [refer to Mitigation Measure B-3(d) in Section 4.4, *Biological Resources*]. Therefore, the DEIR has not been revised.

Response 3.17

The commenter recommends the County modify Mitigation Measure B-1(ff) to prevent the entrapment of newly born pronghorn by prohibiting the creation of excavations and trenches two feet deep or greater during the month of May when the young are on the move, but too small and weak to extricate themselves from a deep excavation or trench. Mitigation Measure B-1(ff) requires that trenches be either covered to prevent entrapment of wildlife (including pronghorn) or include an earthen ramp that would allow wildlife (including young pronghorn) to escape. Furthermore,



all trenching and excavations are to be inspected daily. Nevertheless, Mitigation Measure B-1(ff) in Section 4.4, *Biological Resources*, of the DEIR has been revised as follows:

To prevent entrapment of special-status wildlife, all excavations (e.g., steep-walled holes, or trenches) more than six inches deep shall be covered with plywood or similar materials when not in use or fitted with at least one escape ramp constructed of earth dirt fill, wooden planks, or another material that wildlife could ascend. During the month of May excavations and trenches two-feet deep or greater shall be covered with plywood or similar materials when not in use, and any excavations or trenches that cannot be covered when not in use shall be monitored daily to prevent entrapment of pronghorn calves. All excavations more than six inches deep shall be inspected daily for entrapped wildlife before construction activities begin and once immediately before being covered with plywood. Before excavations are filled, they shall be thoroughly inspected for entrapped wildlife. Any wildlife discovered shall be allowed to escape unimpeded before field activities resume or shall be removed from excavated areas by a qualified biologist and released at a safe nearby location.

Response 3.18

The commenter states that Mitigation Measures B-2(e) through B-2(h) provide protection measures for riparian vegetation and stream resources. The commenter notes that the project proponent should be made aware that any alteration to any stream bed, bank, or channel or associated vegetation would warrant obtaining a Lake or Streambed Alteration Agreement (LSAA) pursuant to Fish and Game Code sections 1600 et seq. from CDFW before starting any work that may impact a CDFW jurisdictional feature. As described in the DEIR, a LSAA would be required for impacts to waters subject to CDFW jurisdiction. See response 16.84 which also addresses LSAA permitting and CDFW authority. Mitigation Measures B-3(b) and B-3(d) in Section 4.4, *Biological Resources*, have been revised as follows:

Revisions to B-3(b):

If a new well must be sited in an area where impacts to W19 or other wetlands cannot be ruled out (or limited to no more than one rainy season) by the hydrologic study, mitigation measure B-3(c) shall apply, and the applicant shall consult with CDFW, USACE and RWQCB, as applicable, to determine if permitting is required.

Revisions to B-3(d):

Mitigation Timing: The applicant shall obtain County approval of the location of mitigation lands, the holder of conservation easements, and the restrictions contained in the easement(s) created for the permanent protection of these lands. Documentation of recorded easement(s) shall be submitted to and approved by the County consistent with the timing outlined in mitigation measure B-1(a). The applicant shall consult with CDFW on the requirement for a Lake and Streambed Alteration Agreement (LSAA; Fish and Game Code 1600) for waters subject to CDFW jurisdiction.



MBUAPCD

Monterey Bay Unified Air Pollution Control District
Serving Monterey, San Benito, and Santa Cruz Counties

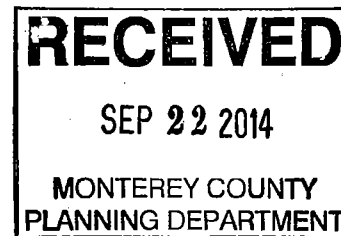
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September 19, 2014

Delinda Robinson
Monterey County Resource Management Agency
Planning Department
168 W. Alisal St., 2nd Floor
Salinas, CA 93901

Submitted via email to: CEQAcomments@co.monterey.ca.us



SUBJECT: Comments on DEIR for California Flats Solar Project (PLN120294; SCH#2013041031)

Dear Ms. Robinson:

Thank you for providing the Monterey Bay Unified Air Pollution Control District (Air District) the opportunity to comment on the above-referenced document. The Air District has reviewed the document and has the following comments:

GENERAL:

The Air District supports the development of renewable energy sources, and the generation of electricity from solar power, in particular. Solar represents a combustion free source of energy which can have across the board benefits in terms of reducing criteria pollutants, toxic and GHG emissions. However, the proposed solar project needs to be carefully planned and implemented to avoid unwanted air pollution impacts.

4.1

Overall, the DEIR represents a reasonable effort to estimate air quality impacts and mitigate effects. However, given the massive scale of the project, Air District concerns include the expected significant and unavoidable air quality impacts expected during construction, fugitive dust generated during operations as well as the actual level of emission offsets expected from the project.

Although the project is located in the southeastern most corner of Monterey County, it is on the doorstep to two other air districts that could also be impacted. The Air District suggests that the lead agency coordinate closely with the San Luis Obispo County APCD well as the San Joaquin Valley Unified APCD regarding project alternatives and mitigation.

SPECIFIC COMMENTS:

1. Construction Impacts AQ-2 and Table 4.3-5 pages 4.3-22 to 4.3-23 – The DEIR concludes that impacts from this large construction project will be significant and unavoidable, even after employing an extensive array of fugitive dust mitigation measures. Table 4.3-5 indicates construction PM10 emissions at eight times the Air District's threshold. Although construction activities may tend to be decentralized over a large project area, the Air District requests that

4.2

additional due diligence be applied when disturbing dry soils and when clustering construction activities.

Specifically, the Air District recommends a “Good Neighbor” approach to these activities by including the following additional measures:

- Avoid clustered construction activities near residences.
- Apply excess water and modulate soil disturbance when working near residences, especially when wind gusts exceed 15 mph.
- Notify residents when the construction schedule calls for activity near their homes.
- Continue grading activities during light rain events.
- Consider paving unpaved onsite roads. Alternatively, use surfactants on unpaved onsite roads and staging areas for dust suppression as this reduces entrained road dust.
- Consult with habitat managers and local ranchers to establish tall hedges/shrubs or evergreen trees along the perimeter of the site to reduce offsite drift of dust, particularly along the perimeter of the site where residents are located.
- Develop a landscape plan which includes habitat acceptable ground cover in disturbed areas prone to emitting fugitive dust.

4.2

Note 6 to Table 4.3-5 states the Tier 3 was used for mitigation in CalEEMod. However, this measure is not reflected in the mitigation measures. Due to the significant amounts of NOx and ROG emissions from project construction, the Air District strongly recommends adding in a mitigation measure, such as the following, to address construction equipment exhaust emissions:

All off-road construction diesel engines not registered under the California Air Resources Board's Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower (hp) or more, will meet, at a minimum, the Tier 3 California Emissions Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, section 2423(b)(1) unless such engine is not available for a particular item of equipment. If a Tier 3 engine is not available for any off-road engine larger than 50 hp, that engine will have tailpipe retrofit controls that reduce exhaust emissions of NOx and PM to no more than Tier 2 emission levels. Tier 1 engines will be allowed on a case-by-case basis only when the Project owner has documented that no Tier 2 equipment or emissions equivalent retrofit equipment is available for a particular equipment type that must be used to complete the Project's construction. This will be documented with signed written correspondence by the appropriate construction contractor along with documented correspondence with at least two construction equipment rental firms. A list of the construction equipment and the associated EPA Tier shall be submitted to the County Resource Management Agency prior to the issuance of a grading permit to verify implementation of measure.

2. Project Setting Section 2.4.1/Prevailing Winds – This section, as well as Figure 2.4a, indicate there are two rural residences located in close proximity to the site (775 feet N to NW of site). The attached wind rose from Parkfield (2008-2010) suggests that prevailing daytime winds during construction work hours are generally from the SE. This would put the residences, as well as the

4.3

more distant settlement of Parkfield, downwind of the large construction area most of the time. This alignment emphasizes the need to carefully manage construction emissions depending on wind, location and the level of construction activity.

4.3

3. Air District Rule 402 Nuisance on page 4.3-16 – Air District Rule 402 Nuisance is listed on this page as an applicable regulation, however, there is no discussion regarding its implication. The rule applies to the construction and operation of the facility and can be enforced if there are local dust or odor complaints, or if adverse local conditions are observed by an inspector. Given the significant and unavoidable impacts expected during construction, discussion should be added to the DEIR on how Rule 402 relates to the project. Application of the mitigation measures in the DEIR, as well as those listed above aimed at reducing offsite drift of fugitive dust, should help maintain compliance with Rule 402.

4.4

4. Impact AQ-6, Valley Fever page ES-11 – The Air District supports efforts to mitigate potential impacts of the soil dwelling fungus associated with Valley Fever. Although the Air District has no direct jurisdiction over airborne pathogens, the mitigation measures designed to reduce fugitive dust under AQ-6 and also in the Air District comment above should also help to reduce dust that may carry this pathogen. We encourage the applicant to work with the Monterey County Health Department as the primary contact on this issue.

4.5

5. AQ-6(b) Additional Valley Fever Dust Suppression Measures page 4.3-34 – The text states “If wind speeds exceed 15 mph or temperatures exceed 95 degrees Fahrenheit for three consecutive days, additional dust suppression measures (such as additional water or the application of additional soil stabilizer) shall be implemented prior to and immediately following ground disturbing activities.” Please clarify if these criteria are triggered by peak daily values or conditions sustained continuously for 24 hours.

4.6

6. Project Characteristics, Onsite Weather Stations on page 2-14 – The text in the second paragraph on this page indicates there will be weather stations placed throughout the solar arrays. The Air District recommends adding a condition to mitigation measure AQ-2(a) that the real-time weather station data will be made available online to the Air District and the public so that the Air District can assess conditions in the area. This should include at a minimum hourly wind speed (mph) and direction, temperature and humidity.

4.7

7. GHG Threshold on page 4.7-11 – The text states “The MBUAPCD recommends using the adopted SLOAPCD quantitative emissions threshold of 1,150 metric tons of carbon dioxide equivalent (MT CO2E) per year for most land use projects.” It should be noted that the Air District does not have a formal policy recommending specific thresholds. The Air District is currently developing CEQA

4.8

GHG thresholds that may or may not be consistent with SLOAPCD's approach. The Air District does encourage lead agencies to consider a variety of metrics for evaluating GHG emissions and related mitigation measures as they best apply to the specific project.

4.8

8. Daily Operational Emissions Table 4.3-6 page 4.3-29 – Table 4.3-6 shows a net benefit in emissions due to the displaced (offset) emissions the project would prevent that would otherwise occur at “traditional natural gas and coal-fired power plants”. The emission offsets presented in this table appear to be overstated and should be re-evaluated. The offsets appear to be based obsolete conditions no longer representative of power plants operating on the California grid.

The calculated offsets are difficult to reconstruct from the information in the DEIR and supporting appendices. For instance, Table 4.3-6 of the DEIR shows a net displacement of 1,278 lbs/day of NOx. An unmarked table on page 94 of Appendix C1 suggests that this was based on 2,068 MWh/day at 0.62 lbs NOx/MWh which is apparently from the CAMX region in EPA's eGRIDweb model for the year 2005. However, if the factor from the natural gas fired MLPP in Monterey County was used instead (0.0576 lb NOx/MWh), the emissions savings would be an order of magnitude lower. The overstatement is further illustrated by the large 1,098 lb/day SOx offset shown in Table 4.3-6, which is two orders of magnitude higher than what is typical for a natural gas fired power plant operating in California.

4.9

The emission offsets shown in Table 4.3-6 appear to be related to out of state coal fired power plants, some of which no longer exist. CEC's Energy Almanac indicates that in 2005, power generated by coal plants accounted for 12.5% of in-state generation with that figure diminishing to a mere 0.5% by 2013. Please re-evaluate the displaced emissions in Table 4.3-6 to reflect more current and representative conditions.

9. 2005 Base Year for Daily Generation/Emissions – Table 4.3-6 from page 4.3-29 in the DEIR as well as the table from Appendix C1 are based on the year 2005. However, the NOP was submitted in 2013. In CEQA, the baseline is the existing environment at the time the NOP was submitted. Please provide the emission and generation figures based on a more current year with a more representative mix of non-coal burning power plants on the grid.

4.10

10. Operational Energy Use page 94 Appendix C1 – The operational emission offsets calculated in the unmarked table on page 94 of Appendix C1 (also Table 4.3-6 DEIR) are based on 2,067.67 MWh/day of electricity generation, presumably offset generation from the 280 MW solar plant. Please explain how this figure was developed.

4.11

11. Impact AQ-3 Operational Impacts Local vs. Regional pages 4.3-27 to 29 – The text indicates that overall the project would have a net benefit in term of long-term emissions of operational criteria

4.12

pollutants and thus, the operational impacts on regional air quality would be beneficial. It should be made very clear in the text and in Table 4.3-6 that the increased vehicle emissions are local in nature and that the displaced emissions causing the net benefit are statewide or even out of state (coal) across the grid. Thus, the projected benefits would not occur in the local community and the onsite dust and exhaust emissions would impact local air quality conditions.

4.12

12. Mitigation Monitoring Construction Dust AQ-2, page ES-10 – The DEIR indicates there will be onsite enforcement and monitoring of the mitigation measures for construction dust AQ-2. This is to include a daily log of activities summarized in a monthly report to the Monterey County RMA. The Air District requests that the mitigation measure includes a statement that copies of these reports will be provided to the Air District for confirmation.

4.13

13. Back-up Generators – Given the remote location of the project site, auxiliary power equipment may be needed. Please update the operational emissions analysis to account for these sources.

4.14

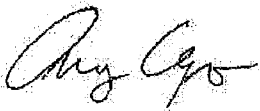
14. Other Considerations:

- Use CNG-powered equipment for site preparation and construction activities.
- Establish an onsite EV charge station powered by the solar plant for onsite maintenance vehicles and include electric powered vehicles in the maintenance fleet.
- Sponsor an EV charge station in Parkfield which would run off the solar plant.

4.15

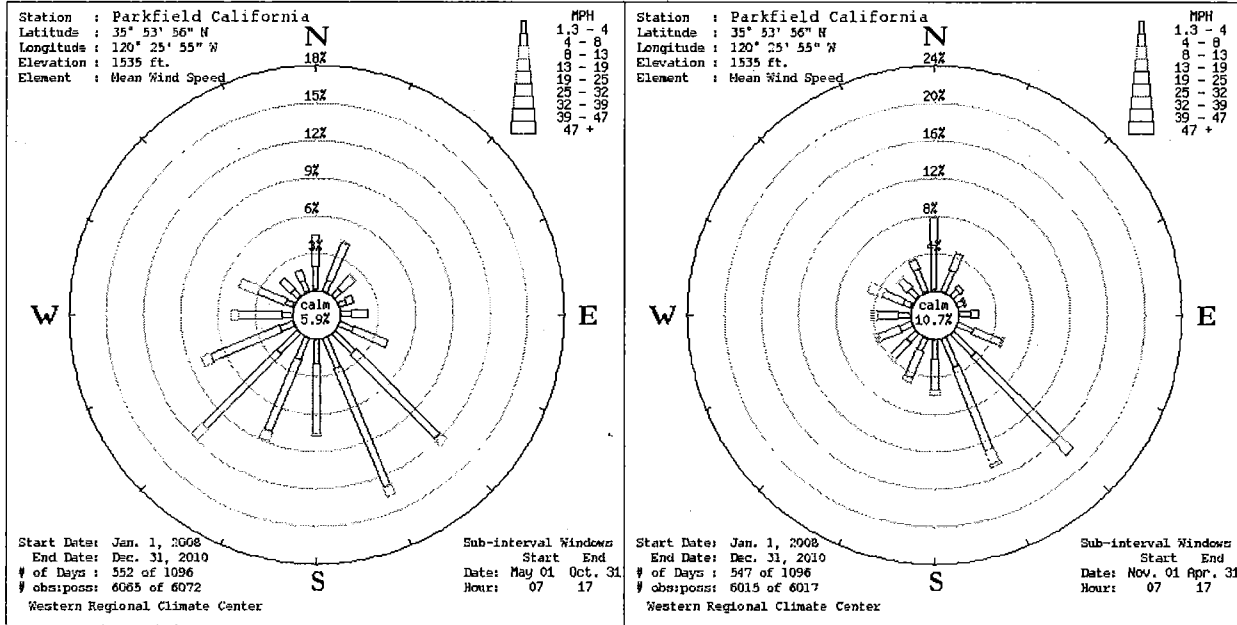
Please let me know if you have questions, I can be reached at (831) 647-9418 ext. 227 or aclymo@mbuapcd.org.

Best regards,



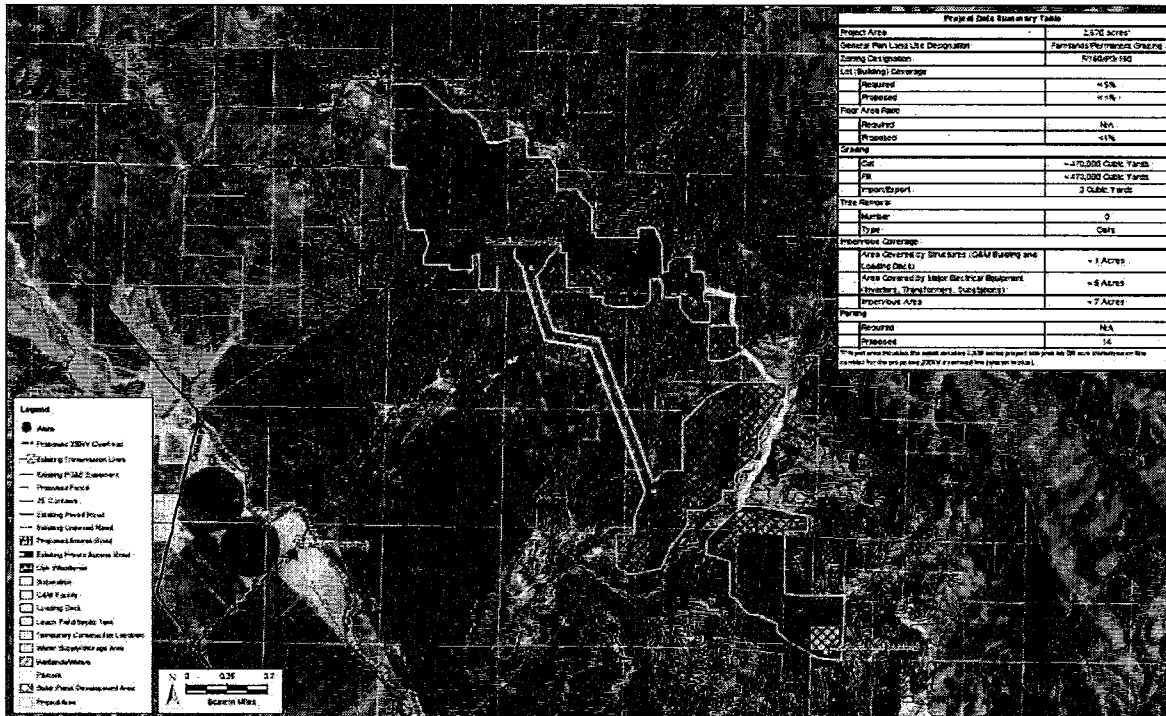
Amy Clymo
Supervising Air Quality Planner

cc: Richard A. Stedman, Air Pollution Control Officer
Mike Gilroy, Deputy Air Pollution Control Officer
Bob Nunes, MBUAPCD Air Quality Planner



DRY SEASON May-Oct WET SEASON Nov-Apr
Parkfield Winds during Daytime Work Hours 7 am - 5 pm
 (Direction the wind is coming from)

California Flats Solar Project
 Notice of Preparation of a Draft Environmental Impact Report



Site Plan
 Figure 2
 County of Monterey

Project site plan and location of nearest residences NW of site.

Letter 4

COMMENTER: Amy Clymo, Supervising Air Quality Planner, Monterey Bay Unified Air Pollution Control District

DATE: September 19, 2014

Response 4.1

The commenter notes that the MBUAPCD supports the development of renewable energy sources and the generation of electricity from solar power, but notes that new solar projects need to be planned to avoid significant air pollution impacts. The commenter states that the DEIR represents a reasonable effort to estimate the air quality impacts and mitigate effects, but that MBUAPCD concerns about the project include the significant and unavoidable air quality impacts expected during construction, fugitive dust generated during operations, as well as the actual level of emission offsets expected from the project. These concerns are discussed in subsequent comments and responses to this letter.

The commenter notes that the project is located near two other air districts – the San Luis Obispo Air Pollution control District (SLOAPCD) and the San Joaquin Valley Air Pollution Control District (SJVAPCD), and recommends that the lead CEQA agency coordinate with these districts regarding project alternatives and mitigation. For responses to SLOAPCD comments on the DEIR pertaining to project mitigation, refer to Letter 9 and responses 9.1 through 9.6. As described in the DEIR, the project would include use and minor maintenance of the southern portions of the existing private ranch road within San Luis Obispo County and the South Central Coast Air Basin (SCCAB) that is within the jurisdiction of SLOAPCD. The regulatory setting associated with the SCCAB and SLOAPCD jurisdiction is discussed in Section 4.3.2(f) in Section 4.3, *Air Quality*. Potential impacts within the SCCAB are discussed in Section 4.3.3(d) of the DEIR, under Impact AQ-8 (SLOAPCD and SJVAPCD Air Quality Management Plan [AQMP] consistency), Impact AQ-9 (short-term construction emissions within SCCAB), and Impact AQ-10 (long-term air pollutant emissions in SCCAB). None of the project components would be within the San Joaquin Valley Air Basin (SJVAB) or otherwise under the jurisdiction of the SJVAPCD; however, SJVAB's air quality may be affected due to its proximity to the site. Potential impacts within the SJVAB are discussed in Section 4.3.3(d) of the DEIR, under Impact AQ-8 (SLOAPCD and SJVAPCD Air Quality Management Plan [AQMP] consistency). Cumulative impacts, including cumulative air pollutant emissions in the SCCAB and the SJVAB, are described in Section 4.3.3(e), *Cumulative Impacts*.

Response 4.2

The commenter notes that the DEIR concludes that impacts from construction of the project would exceed the applicable MBUAPCD CEQA thresholds for NO_x and PM₁₀, and would be significant and unavoidable. The commenter states that MBUAPCD recommends including several additional construction emission mitigation measures, including avoiding clustered construction activities near residences, applying excess water and modulate soil disturbance when working near residences, notification of residents when construction activity occurs near their homes, continuing grading activity during light rain events, paving on-site road where possible, consulting with habitat managers and local ranchers to establish vegetation along the perimeter of the site, and



developing a landscape plan that includes ground cover in disturbed areas. Mitigation Measure AQ-2, Dust Control Measures, in Section 4.3, *Air Quality*, incorporates recommended dust control measures from MBUAPCD's *CEQA Air Quality Guidelines* document (last revised February 2008) as well as SLOAPCD's *CEQA Air Quality Handbook* (April, 2012) designed to minimize dust impacts associated with project construction. In addition, several of the commenter's recommendations are included in project design features formalized as applicant proposed measures (or APMs), including implementing a Final Construction Management Plan (CMP) that would include measures to ensure on-going coordination with adjacent property owners during project construction (APM-2), and preparing a Dust Control Plan to minimize fugitive dust emissions during project construction, including dust control measures to be provided in accordance with MBUAPCD requirements (APM-4). The project APMs, in combination with Mitigation Measures AQ-2(a), AQ-2(b), and AQ-2(c), would maintain compliance with MBUAPCD Rule 402, and would minimize impacts associated with emissions during project construction to the maximum extent feasible.

The commenter also notes that Table 4.3-5, under Impact AQ-2, states that Tier 3 California Emissions Standards for equipment were used for mitigation in the emissions modeling conducted for the project, but were not specified as mitigation. In order to ensure that air quality impacts are mitigated to the maximum extent feasible, Mitigation Measure AQ-2(c) has been added, requiring the use of Tier 3 construction equipment, as follows:

AQ-2(c) Tier 3 Construction Equipment. All off-road construction diesel engines not registered under the California Air Resources Board's Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower (hp) or more, shall meet, at a minimum, the Tier 3 California Emissions Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, section 2423(b)(1) unless such engine is not available for a particular item of equipment.

Construction or trucking companies with fleets that do not have engines in their fleet that meet the Tier 3 standards may be eligible by proving alternative compliance. If a Tier 3 (or equivalent alternative compliance) engine is not available for any off-road engine larger than 50 hp, that engine will have tailpipe retrofit controls that reduce exhaust emissions of NO_x and PM₁₀ to no more than Tier 2 emission levels. Tier 1 engines will be allowed on a case-by-case basis only when the project applicant has documented that no Tier 2 equipment or emissions equivalent retrofit equipment is available for a particular equipment type that must be used to complete project construction. This shall be documented with signed written correspondence by the appropriate construction contractor along with documented correspondence with at least two construction equipment rental firms. A list of the construction equipment used on-site and the associated EPA Tier shall be submitted to the County of Monterey RMA-Planning quarterly to verify implementation of this measure.



It should be noted that Mitigation Measure AQ-2(c) is not mitigation for a previously unidentified impact; rather, this measure is intended to further reduce impacts identified in the DEIR to the maximum extent feasible. The above revisions have also been made to Table 4.3-1 (Impact and Mitigation Summary: Air Quality) and Table ES-1 in the *Executive Summary*.

Response 4.3

The commenter notes that there are two rural residences located near the project site (approximately 775 feet north of the site boundary, near the eastern public road terminus of Turkey Flat Road), and provides a wind rose from Parkfield (2008-2010), which shows prevailing daytime winds during construction work hours from the southeast, which indicates that these residences would be located downwind of construction activity during the daytime hours when project construction is primarily expected to occur. The DEIR states that the prevailing winds of the Paso Robles area are westerly to northwesterly (meaning that winds generally blow west to east and northwest to southeast; National Oceanic and Atmospheric Administration, 2009), but notes that seasonal and local topographic conditions may alter the wind directionality. Mitigation Measure AQ-2(a) requires dust control measures throughout the duration of construction, including a grading plan that minimizes the amount of disturbed area, water trucks or sprinkler systems to prevent airborne dust from leaving the site, establishment of clear boundaries for dust control between work areas, a 15 mph on-site speed limit, and on-site dust control monitoring during construction activity. These measures would minimize temporary impacts associated with windblown dust. Mitigation Measure AQ-6(b) specifies additional dust suppression measures (to be incorporated into the Final Construction Management Plan, subject to County of Monterey RMA – Planning Department approval prior to the issuance of the grading permit) that would be required if wind speeds exceed 15 mph or temperatures exceed 95 degrees Fahrenheit for three consecutive days. Refer also to response 4.2.

Response 4.4

The commenter notes that MBUAPCD Rule 402 is listed in the DEIR as an applicable regulation, but that there is no subsequent discussion regarding the implications of MBUAPCD Rule 402. The commenter also states that application of the mitigation measures in the DEIR, as well as the recommended additions described in response 4.2, above, which would reduce off-site drift of fugitive dust, would be expected to help maintain compliance with Rule 402. Impact AQ-2 of the DEIR has been modified as follows:

Total Short-Term Construction Emissions. As described above and shown in Table 4.3-5, temporary emissions during construction would exceed MBUAPCD thresholds for PM₁₀ and NO_x. As described in Section 2.0, *Project Description*, the project includes APM-2 through APM-5, which would reduce temporary emissions associated with construction of the proposed project. Project construction activity would be required to comply with MBUAPCD Rule 402, which states that:

No person shall discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or which endanger the comfort, repose, health, or safety of any such persons or the public; or which cause, or have a natural tendency to cause, injury or damage to business or property. {CAL. HSC Section 41700}



~~Therefore~~ However, short-term air quality emissions during project construction would be remain potentially significant.

In addition, the *Significance After Mitigation* discussion for Impact AQ-2 in Section 4.3, *Air Quality*, has been modified as follows:

Significance After Mitigation. Air emissions calculations were performed for both before and after the incorporation of the above-identified mitigation measures. The mitigation measures include those typically required by CARB and the MBUAPCD for NO_x (such as use of off-road equipment with Tier 3 ~~III~~ engines) and PM₁₀ (such as watering program for dust control). As shown in Table 4.3-5, despite implementation of Mitigation Measures AQ-2(a), ~~and AQ-2(b), and AQ-2(c)~~, temporary construction emissions would continue to exceed MBUAPCD thresholds for NO_x and PM₁₀. In addition, due to the proximity of the site to other air basins, construction emissions could potentially impact air quality in those air basins. No other feasible measures are available that would further reduce construction emissions. Implementation of Mitigation Measures AQ-2(a), AQ-2(b), and AQ-2(c) would help maintain compliance with MBUAPCD Rule 402. ~~Therefore~~ However, due to the exceedance of MBUAPCD thresholds for construction activity, impacts would remain significant and unavoidable during construction.

Response 4.5

The commenter states that MBUAPCD supports efforts to mitigate potential impacts related to Valley Fever. The commenter notes that MBUAPCD has no direct jurisdiction over airborne pathogens, and that Mitigation Measures AQ-6(a) through AQ-6(e) in addition to the recommended additions described in response 4.2, above, which would reduce off-site drift of fugitive dust, would help reduce dust that may carry the *Coccidioides* fungus. The commenter encourages the project applicant to work with the Monterey County Health Department as the primary contact on this issue.

Mitigation Measure AQ-6(a) requires the applicant to consult with the Monterey County Health Department (Health Officer), MBUAPCD, and the California Occupational Safety and Health Administration (Cal/OSHA) Compliance Program to develop a Valley Fever Management Plan that includes specific measures to reduce the potential for exposure to Valley Fever. Mitigation Measure AQ-6(c) requires the applicant to notify the Monterey County Health Department (Health Officer) and the Monterey County RMA-Planning Department not more than 60 nor less than 30 days before construction activities commence to allow the Health Officer opportunity to provide educational outreach to community members and medical providers, as well as enhanced disease surveillance in the area both during and after construction activities involving grading.

Response 4.6

The commenter notes that Mitigation Measure AQ-6(b) requires additional dust suppression measures if wind speeds exceed 15 mph or temperatures exceed 95 degrees Fahrenheit for three consecutive days. The commenter requests clarification as to whether this requirement would be triggered based on peak daily values or conditions sustained continuously for 24 hours. Mitigation



Measure AQ-6(b) has been clarified to address this ambiguity, as follows (refer also to response 16.26):

AQ-6(b) Additional Valley Fever Dust Suppression Measures. If peak daily wind speeds exceed 15 mph or peak daily temperatures exceed 95 degrees Fahrenheit for three consecutive days, additional dust suppression measures (such as additional water or the application of additional soil stabilizer) shall be implemented prior to and immediately following ground disturbing activities. The additional dust suppression shall continue until winds are 10 mph or lower and outdoor air temperatures are below a peak daily temperature of 90 degrees for at least two consecutive days. The additional dust suppression measures shall be incorporated into the Final Construction Management Plan. The Final Construction Management Plan shall be submitted to the County of Monterey RMA-Planning Department for review and approval prior to ~~the issuance of any grading permit~~ commencing ground disturbing activities.

The above revisions have also been made to Table 4.3-1 (Impact and Mitigation Summary: Air Quality) and Table ES-1 in the *Executive Summary*.

Response 4.7

The commenter notes that the project would include weather stations located throughout the solar arrays, and requests that Mitigation Measure AQ-2(a) be revised to condition the project to make the real-time weather station data available online to MBUAPCD and the public, including hourly wind speed and direction, temperature, and humidity. The revision requested by the commenter would not directly address an environmental impact identified in the DEIR, and is therefore not an appropriate requirement for mitigation under CEQA. The MBUAPCD may request that the approving agency – in this case the County – condition the project to make the weather station data available, or may submit their request to the project applicant directly; however, no changes to the DEIR are required.

Response 4.8

The commenter states that MBUAPCD does not have a formal policy recommending any specific threshold for greenhouse gas (GHG) emissions. The DEIR states that “the MBUAPCD recommends using the adopted SLOAPCD quantitative emissions threshold of 1,150 metric tons of carbon dioxide equivalent (MT CO₂E) per year for most land use projects.” Because the MBUAPCD has not yet adopted CEQA GHG thresholds, the adopted SLOAPCD quantitative threshold is the most appropriate threshold for determining the significance of GHG emissions, and is supported by substantial evidence. However, to accurately reflect MBUAPCD’s position and relationship of the adopted SLOAPCD GHG threshold to the proposed project, Section 4.7.3(a) (Methodology and Significance Thresholds) in Section 4.7, *Greenhouse Gas Emissions/Climate Change*, has been revised as follows:



The MBUAPCD does not have a formal policy recommending any specific threshold for GHG emissions. The SLOAPCD has ~~recommends using the~~ adopted a SLOAPCD quantitative emissions threshold of 1,150 metric tons of carbon dioxide equivalent (MT CO₂E) per year for most land use projects. Therefore, the project's contribution to cumulative impacts related to GHG emissions and climate change would be cumulatively considerable if the project would produce more than 1,150 metric tons of CO₂E per year. In addition, a project that contributes to a net decrease in GHG emissions and is consistent with the reduction goals of AB 32 is presumed to have a less than significant GHG impact.

Response 4.9

The commenter states that the calculated emissions offsets (shown in Table 4.3-6 of the DEIR) are not based on current conditions (i.e., no longer representative of power plants operating on the California grid), and are therefore overstated. As noted in the DEIR, the proposed project would reduce or "offset" emissions associated with electricity on the state-wide utility grid, which includes energy generated by traditional, non-renewable sources, such as natural gas and coal-fired plants. These emissions are often referred to as "displaced" or "avoided" emissions. Calculating displaced emissions is dependent on a variety of factors, including seasonal changes, weather conditions, fuel demands and availability, and changes in the state-wide energy resource mix. These factors often fluctuate, sometimes daily, which complicates the estimation of displaced emissions. For instance, during drought years, less hydroelectricity is available and other power sources are used to supplement the lack of available hydroelectricity. These other sources can be in-state or out-of-state plants, including those powered by fossil fuels (e.g., natural gas, coal). For this same reason and because electricity enters the state-wide electrical transmission and distribution system (more commonly referred to as the grid) from multiple sources and locations, it is typically not possible to calculate displaced emissions for a specific facility or in-state geographic area. The following paragraphs provide a detailed explanation of the data sources used to estimate displaced emissions associated with the project. As discussed in detail below, the quantification of displaced emissions is based on state-wide electricity consumption, which is not limited solely to electricity generated in-state. For projects that are not specific to an individual facility or provider, such as the proposed project, the quantification of displaced emissions is more appropriately based on the state-wide rates.

In accordance with the Climate Registry's *Local Government Operations Protocol* and the World Resources Institute's *GHG Protocol*, displaced emissions of NO_x and SO_x, as identified in the DEIR, were calculated based on emission factors obtained from the U.S. EPA's *Emissions & Generation Resource Integrated Database (eGRID) 2007*, version 1.1, for the WECC California (CAMX) sub-region. GHG emission factors were derived from the California Air Pollution Control Officers Association (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures (2010)* and California Climate Action Registry (CCAR) *Database, Power/Utility Protocol (2007)*. The eGRID2007 and CCAR databases represented the most current information available at the time the DEIR's analysis was prepared. As noted by the commenter, the emission factors contained in eGRID2007 were derived from actual utility generation data specific to the WECC CAMX sub-region for year 2005. These emissions factors are generally representative of state-wide averages and, therefore, are recommended for use by the Climate Registry. Although eGRID also provides data specific to individual power-generation facilities, this information is typically not considered appropriate for the purposes of calculating displaced emissions for grid-tied projects given that electricity within the state comes from a variety of sources, as opposed to an individual plant.



As noted by the commenter, the electricity generation rate used in the DEIR analysis was based on a rate of 2,067.7 megawatt hours per day (MWh/day). As a result of subsequent revisions to refine the project design, the current estimation of power generation for the proposed project has decreased slightly to 1,991 MWh/day. This rate is based on data provided by the project proponent assuming an estimated average of 726.9 GWh/year over an assumed 365 days of annual operation. As noted above, actual power generation rates would vary depending on multiple factors, such as weather conditions. The decrease in the rate from 2,067.7 MWh/day to 1,991 MWh/day represents a reduction of less than 4% in displaced emissions, and would not result in a change in the DEIR conclusion that the project would displace far more emissions than it would generate during the operational period, and that the operational impacts to air quality of the proposed project would be beneficial (refer to Impact AQ-3 and Impact AQ-10 in Section 4.3, *Air Quality*, of the DEIR).

The evaluation of displaced emissions identified in the DEIR was based on that state-wide electricity power system, which includes in-state and out-of-state resources. A summary of total state-wide power resources is provided in Table 2-1. The resource mix identified in Table 2-1 is based on year 2013 data (published in September 2014) and represents the most current data available.

**Table 2-1
2013 Total System Power for the State of California (Gigawatt Hours)**

| Fuel Type | California In-State Generation | Percent of California In-State Generation | Northwest Imports | Southwest Imports | California Power Mix | Percent California Power Mix |
|--|--------------------------------|---|-------------------|-------------------|----------------------|------------------------------|
| Coal | 1,018 | 0.51% | 812 | 21,363 | 23,193 | 7.82% |
| Large Hydro | 20,754 | 10.39% | 96 | 2,159 | 23,009 | 7.76% |
| Natural Gas | 120,863 | 60.50% | 1,241 | 9,319 | 131,423 | 44.31% |
| Nuclear | 17,860 | 8.94% | 0 | 8,357 | 26,217 | 8.84% |
| Oil | 38 | 0.02% | 0 | 0 | 38 | 0.01% |
| Other | 14 | 0.01% | 0 | 0 | 14 | 0.00% |
| Renewables | 39,236 | 19.64% | 13,187 | 3,256 | 55,679 | 18.77% |
| Biomass | 6,423 | 3.21% | 1,485 | 21 | 7,929 | 2.67% |
| Geothermal | 12,485 | 6.25% | 212 | 495 | 13,192 | 4.45% |
| Small Hydro | 3,343 | 1.67% | 470 | 0 | 3,813 | 1.29% |
| Solar | 4,291 | 2.15% | 58 | 1,040 | 5,389 | 1.82% |
| Wind | 12,694 | 6.35% | 10,962 | 1,700 | 25,356 | 8.55% |
| Unspecified Sources of Power | n/a | n/a | 19,750 | 17,305 | 37,055 | 12.49% |
| Total: | 199,783 | 100% | 35,086 | 61,759 | 296,628 | 100% |
| Percent Statewide Contribution: | 67.4% | | 11.8% | 20.8% | | |

Data as of September 25, 2014.

Source: The California Energy Commission. 2014 Energy Almanac. Available at website url: http://energyalmanac.ca.gov/electricity/total_system_power.html.



As noted in Table 2-1, a total of roughly 67.4% of the electricity consumed within the State of California is produced by in-state facilities. The remaining approximately 32.6% is imported from out-of-state facilities located within the northwest and southwest geographical regions of the United States. As correctly noted by the commenter, power generated by coal-fueled plants comprises roughly 0.5% of the electricity generated by facilities located within the State of California. However, with the inclusion of out-of-state coal facilities, power produced by coal-fueled facilities totaled approximately 7.82% of power consumed state-wide. In addition, it is also important to note that the power source for some out-of-state facilities is unspecified and accounts for roughly 12.5% of the state-wide estimate. These unspecified power sources may include some coal-fueled facilities not accounted for in the above stated estimates, particularly for imports from the southwest region of the United States. Because the quantification of displaced emissions is based on state-wide electricity consumption, which is not limited solely to electricity generated in-state, the use of emissions factors derived from the eGRID database, which includes coal-fueled plants, is appropriate. Conversely, the use of emission factors specific to natural gas fired facilities would not be representative of state-wide energy use.

The commenter states that the estimated emissions of NO_x and SO_x identified in the DEIR are overstated when compared to emissions associated with the natural gas fired Moss Landing Power Plant (MLPP) located in Monterey County. As previously discussed and per the Climate Registry's *Local Government Operations Protocol*, displaced GHG emissions identified in the DEIR were calculated based on emission factors obtained from the U.S. EPA's eGRID2007, version 1.1, for the WECC California sub-region. These rates are reflective of state-wide energy consumption rates, which include energy imported from out-of-state regions. As previously discussed, eGRID also provides data specific to individual power-generation facilities, including MLPP. However, for projects that are not specific to an individual facility or provider, such as the proposed project, the quantification of displaced emissions is more appropriately based on the state-wide rates.

Table 2-2 provides a summary of the displaced emissions, as identified in the DEIR. As noted above, the DEIR estimates of displaced NO_x, SO_x, and GHGs (i.e., CO₂, N₂O, and CH₄) are based on year 2005 data obtained from the 2007eGRID database (December 2008) and an estimated daily power-generation rate of 2,067.7 MWh/day. The eGRID2007 database was the most current data available for state-wide power generation/consumption at the time the analysis was prepared.

Table 2-2 also provides updated estimates of displaced emissions based on the recently released 2010eGRID database, which was updated in February 2014, and the revised daily power-generation rate of 1,991 MWh/day. This power-generation rate is roughly equivalent to and more conservative than the 2,067.7 generation rate identified in the DEIR.

For informational purposes only, displaced emissions were also quantified specific to eGRID2014 rates for Dynegy's MLPP, as well as projected year 2014 rates obtained from PG&E. It is important to note that the displaced emissions quantified based on MLPP and PG&E rates do not include the full mix of fuels and, therefore, may not be representative of the current state-wide energy consumption resource mix. It is also important to reiterate that actual displaced emissions would vary depending on multiple factors including weather conditions and the state-wide mix of energy resources.



**Table 2-2
 Estimated Displaced Emissions, California Flats Solar Project**

| Resource/Provider | Emissions (lbs/day) | | | | | | | | |
|--|---------------------|-----------------|-------|-----------------|------------------|-------------------|-----------------|------------------|-----------------|
| | ROG | NO _x | CO | SO _x | PM ₁₀ | PM _{2.5} | CO ₂ | N ₂ O | CH ₄ |
| State-Wide Grid (eGrid2007; DEIR) ^{1,5} | 20.7 | 1,277.2 | 413.5 | 1,097.9 | 186.1 | 124.1 | 1,217,875.3 | 20.7 | 82.7 |
| State-Wide Grid (eGrid2014) ² | 19.9 | 805.8 | 398.2 | 340.1 | 179.2 | 119.5 | 1,216,142.6 | 12.0 | 56.7 |
| PG&E Projected Year 2014 ³ | n/a | n/a | n/a | n/a | n/a | n/a | 820,292.0 | n/a | n/a |
| Dynegy Moss Landing Power Plant, Monterey County | n/a | 112.5 | n/a | 9.0 | 0.0 | 0.0 | 1,775,633.5 | 3.5 | 34.7 |

1. Based on information derived from the California Flats Solar Project EIR, Tables 4.3-6 and 4.7-6: NO_x and SO_x emission factors derived from U.S. EPA's eGRID2007(v 1.1) Year 2005 Summary Tables. PM₁₀ derived from 2008 Building Energy Efficiency Standards for Residential and Nonresidential Buildings, revised June 2009; PM_{2.5} assumes 67% of PM₁₀ per USEPA AP42; PM₁₀ rate varies from 0.0525 to 0.0985 lbs/MWh with an average of 0.0619lbs/MWh. ROG and CO emission factors assumed based on rates identified in SCAQMD's CEQA Air Quality Handbook, Table A9-11-A (1993) and CARB Guidance for Permitting of electric generating technologies. GHG emission factors derived from CAPCOA Quantifying Greenhouse Gas Mitigation Measures (2010) and California Climate Action Registry Database, Power/Utility Protocol (2007).
2. Based on updated emission factors for NO_x, SO_x, CO₂, N₂O, and CH₄ obtained from eGRID2014 database.
3. Derived from PG&E's Greenhouse Gas Emission Factors: Guidance for PG&E Customers April 2013.
4. Based on emission factors obtained from U.S. EPA's eGRID2014 database.
5. Emissions may vary due to rounding.

As depicted in Table 2-2, displaced emissions based on the more current eGRID2014 database would total approximately 19.9 lbs/day of ROG, 805.8 lbs/day of NO_x, 398.2 lbs/day of CO, 340.1 lbs/day of SO_x, 179.2 lbs/day of PM₁₀, 119.5 lbs/day of PM_{2.5}, 1,216,142.6 lbs/day of CO₂, 12.0 lbs/day of N₂O, and 56.7 lbs/day of CH₄. Displaced emissions of CO₂, based on projected year 2014 PG&E rates, would total 820,292 lbs/day; whereas projected emissions of CO₂ based on the MLPP rate would be approximately 1,775,633.5 lbs/day. It is important to note that the estimated emissions based on the forecasted PG&E year 2014 rate includes a higher percentage of renewables than the state-wide average; whereas, calculated emissions based on the MLPP rate are specific to this natural-gas fueled plant.

Based on the updated emissions modeling conducted, displaced emissions attributable to the proposed project would be slightly, but not significantly, lower than what was presented in the DEIR, and would still represent a beneficial impact from the proposed project. The eGRID2014 emission rates reflect an overall decrease when compared to the rates identified in the previous eGRID2007 database. The reduction is due, in part, to recent reductions in reliance on energy facilities powered by fossil fuels, including coal. This overall reduction in emission rates is projected to continue in future years as reliance on renewable energy sources increases. Rates will also vary depending on various other factors, including weather conditions. For these reasons, actual estimates of displaced emissions are inherently dynamic and will vary, depending on any number of changing conditions and assumptions. The revised modeling does not result in a change to the impact conclusions identified in the DEIR. The development of renewable sources of power, such as solar, would help to decrease the State's reliance on non-renewable sources of energy, including out-of-state coal-fueled plants, which is projected to result in a projected overall decline in emissions in future years.



Response 4.10

The commenter states that the emissions estimates shown in Table 4.3-6 of the DEIR are based on the year 2005, but that the baseline should be 2013 based on the date of the Notice of Preparation (NOP), and requests emission and generation factors based on a more current year with a more representative mix of non-coal-burning power plants on the grid. As noted in the DEIR, the proposed project would reduce or “offset” emissions associated with electricity on the state-wide utility grid, which includes energy generated by traditional, non-renewable sources, such as natural gas and coal-fired plants. The proposed project would not offset emissions specific to a currently operating facility. Because electricity enters the state-wide grid from multiple sources and locations, it is typically not possible to calculate displaced emissions for a specific facility or in-state geographic area.

Displaced emissions identified in the DEIR were based on emissions factors derived from documents and databases that represented the most current information available at the time the DEIR analysis was prepared. These sources included the U.S. EPA’s *Emissions & Generation Resource Integrated Database* (eGRID) 2007, version 1.1, for the WECC California (CAMX) sub-region, the California Air Pollution Control Officers Association (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures* (2010), and the California Climate Action Registry (CCAR) *Database, Power/Utility Protocol* (2007). The emission factors used in the DEIR analysis were based on state-wide averages, which includes in-state and out-of-state facilities.

A summary of total state-wide power resources is provided in response 4.9, Table 2-1. The resource mix identified in Table 2-1 is based on year 2013 data (published in September 2014) and represents the most current data available. As previously noted in Table 2-1, a total of roughly 67.4% of the electricity consumed within the State of California is produced by in-state facilities. The remaining approximately 32.6% is imported from out-of-state facilities located within the northwest and southwest geographical regions of the United States. Based on the most current information available, coal-fueled facilities constituted approximately 7.82% of power consumed state-wide, excluding unspecified out-of-state facilities. Because the quantification of displaced emissions is based on state-wide electricity consumption, which is not limited solely to electricity generated in-state, the use of emissions factors derived from the eGRID database, which includes coal-fueled plants, is appropriate. Conversely, the use of emission factors specific to natural gas fired facilities would not be representative of state-wide energy grid. Please refer to response 4.9 for additional information.

Response 4.11

The commenter states that the operational emissions offsets calculated in the table on page 94 of Appendix C1 (also Table 4.3-6 of the DEIR) are based on 2,067.67 MWh/day of electricity generation, and requests an explanation for how this figure was developed. As a result of subsequent changes in project design, the current estimation of power generation for the proposed project has decreased slightly to 1,991 MWh/day. This rate is based on data provided by the project proponent assuming an estimated average of 726.9 GWh/year over an assumed 365 days of annual operation, which yields an estimated 1.991 GWh/day (1,991 MWh/day). As noted in response 4.9, actual power generation rates would vary depending on multiple factors, such as weather conditions and changes in the state-wide grid resource mix.



Response 4.12

The commenter notes that Impact AQ-3 of the DEIR indicates that the project's operational impacts on regional air quality would be beneficial, and requests that the DEIR explain that the increased vehicle emissions associated with project operation are local in nature, whereas the displaced emissions causing the net benefit are statewide or out-of-state, and therefore that the on-site dust and exhaust emissions would impact local air quality conditions. Impact AQ-3 has been revised to clarify this, as follows:

As depicted in Table 4.3-6, the estimated long-term emissions from mobile sources would be below the MBUAPCD thresholds. In addition, because the power generated by the project would substantially reduce existing demands for new fossil fuel-fired facilities, other types of project-related emissions would be entirely offset by the indirect emission reductions provided by the energy output of the project. Therefore, total operational emissions would not exceed MBUAPCD thresholds. Overall, the project would have a net regional benefit in term of long-term emissions of operational criteria pollutants and thus, the operational impacts on regional air quality would be beneficial.

Response 4.13

The commenter requests that Mitigation Measure AQ-2(a) be revised to include a statement that copies of the required daily log documenting monitoring activities be provided to MBUAPCD. Mitigation Measure AQ-2(a) has been modified as follows:

- The contractor or builder shall designate up to four persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. As necessary, the monitor shall have the authority to require additional dust control measures be implemented. The monitor shall file monthly reports to the Monterey County RMA - Planning Department, including a daily log documenting monitoring activities, exceedances, and measures taken to reduce dust emissions. Their duties shall include weekdays, holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to RMA-Planning and the APCD Compliance Division prior to the start of any grading, earthwork or demolition. In addition, the log of monitoring activities shall be provided to MBUAPCD for confirmation that dust control measures are meeting the requirements of Rule 402.

The above revisions have also been made to Table 4.3-1 (Impact and Mitigation Summary: Air Quality) and Table ES-1 in the *Executive Summary*.

Response 4.14

The commenter asks whether back-up generators would be required for the project, and requests an update to emissions calculations if so. As described in the *California Flats Solar Project, Air*



Quality and Greenhouse Gas Assessment, prepared by Denise Duffy & Associates (March 2013; DEIR Appendix C.1), the air quality analysis included the use of two generator sets during the construction period. The *California Flats Solar Project, Air Quality and Greenhouse Gas Assessment* does not assume that the project would require generators during operation, since the project would generate electricity as a result of operation. If emergency generators are required for any component of the project, such generators would only be in use rarely, and for short duration. The inclusion of generators for use in emergency situations on the project site would not result in emissions that would change the DEIR conclusion that the project would displace far more emissions than it would generate during the operational period, and that the operational impacts to air quality of the proposed project would be beneficial (refer to Impact AQ-3 and Impact AQ-10 in Section 4.3, *Air Quality*, of the DEIR)

Response 4.15

The commenter suggests additional measures to reduce emissions, including the use of compressed natural gas (CNG)-powered equipment for construction activities, using electrically-powered vehicles (EVs) for the maintenance fleet, establishing an EV charge station powered by the project for on-site vehicles, and sponsoring an EV charge station in Parkfield to be powered by the project. The project applicant may opt to include additional emissions reduction measures in the construction and operational plans for the project; however, additional operational measures are not required by CEQA, as the project's operational impacts would be less than significant (refer to Impact AQ-3). As described in response 9.2, below, Mitigation Measure AQ-2(b) has been revised to include standard measures to reduce ozone precursor and diesel PM emissions from construction equipment, including alternatively fueled construction equipment, as follows:

- Operational NO_x and Diesel PM Emissions Reduction Measures for Construction Equipment
- All construction equipment shall be maintained in proper tune according to manufacturer's specifications;
- All off-road and portable diesel powered equipment shall be fueled with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);
- Use of on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines;
- On- and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5-minute idling limit;
- Use of electrically-powered equipment when feasible;
- Gasoline-powered equipment shall be substituted in place of diesel-powered equipment, where feasible; and
- If available, use of alternatively fueled construction equipment on-site, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.

The above revisions have also been made to Table 4.3-1 (Impact and Mitigation Summary: Air Quality) and Table ES-1 in the *Executive Summary*.



SHANDON JOINT UNIFIED SCHOOL DISTRICT

P. O. Box 79, 101 South First Street, Shandon, CA 93461

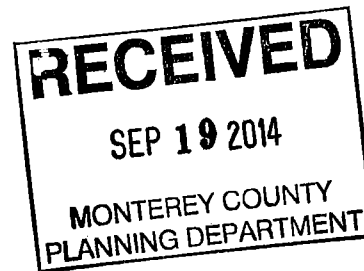
Board of Trustees: Jack Cook, Crystal Helton Amy Russell, Marlene Thomason, Kate Twisselman

Teresa Taylor, Superintendent/Principal
ttaylor@shandonschool.org

TELEPHONE (805) 238-0286
FAX (805) 238-0777

September 19, 2014

Delinda Robinson
Senior Planner
Monterey County RMA-Planning Department
168 West Alisal Street, Second Floor
Salinas, CA



RE: California Flats Solar, LLC (REF130073 & PLN120294)

Dear Ms. Robinson:

The California Flats Solar project is of concern to the Shandon Joint Unified School District as it will be located within our District. As stated in the project EIR Parkfield Elementary, a small k-6 School in our District, is located approximately 7 miles from the project.

5.1

Many of our concerns have been addressed in the EIR. However we want to make sure that our concerns our noted and that the restrictions placed on the project are strictly monitored.

For example, the project plan calls for a road off Highway 41 to be the main access road to the project with plans for improvements to the road to take place. Give the current condition of that road off Highway 41, considerable improvements would need to be made in order to accommodate the number and type of vehicles that will need to use the road. If that road is not adequately improved the natural flow of traffic will be from Highway 46 to Cholame Road to Turkey Flat Road as has been used by vehicles associated with the initial planning stages of the project. Cholame Road is the pathway used by our District to transport students to and from Parkfield Elementary as well as Shandon High School and Shandon Elementary. Safety and deterioration of Cholame road would affect our District.

5.2

We are concerned that the housing situation be closely monitored. The EIR plan calls for the 95% of project employees to not live in the area and be shuttled in. Similar Solar Projects in rural areas of San Luis Obispo County have encountered problems with illegal temporary housing such as travel trailers housing project employees in the vicinity of the project leading to unsanitary situations and a burden on local law enforcement not equipped to serve such a large population. While we welcome more students into our school district, serving students enrolled on a temporary basis due to their parent's employment is very difficult as most staff and facilities expenses depend on a long term revenues.

5.3

We hope that you will keep our concerns in mind as the project progresses.

Sincerely,

Teresa Taylor – Superintendent

Letter 5

COMMENTER: Teresa Taylor, Superintendent, Shandon Joint Unified School District

DATE: September 19, 2014

Response 5.1

The commenter states that the California Flats Solar project is of concern to the Shandon Joint Unified School District because it is located within SJUSD and Parkfield Elementary School is located approximately 7 miles from the project site. This comment is acknowledged and will be forwarded to County decision-makers for their consideration.

Response 5.2

The commenter states that if the main access road is not adequately improved to accommodate the number and type of vehicles serving the project site, then the natural flow of traffic would be from Highway 46 to Cholame Road to Turkey Flat Road. Cholame Road is the pathway used by SJUSD to transport students to and from Parkfield Elementary School, Shandon High School, and Shandon Elementary School. The commenter states that unsafe conditions and deterioration on Cholame Road would affect SJUSD. It should be noted that in the vicinity of the project site, Cholame Road turns into Cholame Valley Road, which is analyzed in the DEIR. As shown in Table 4.13-12 (Current Accident Totals and Rates) in the DEIR, the current rate of accidents per million vehicles entering the Cholame Valley Road/SR 41/46 intersection is less than the statewide average. At this intersection, the DEIR finds that the addition of traffic during construction and operation of the proposed project would not significantly increase hazards. In addition, based upon discussions with Caltrans, the project proponent specifically identified the SR 41/Private Access Road intersection as the preferred method of site access, since the intersection of Cholame Valley Road/SR 46 did not have sufficient roadway queuing length to accommodate the necessary acceleration, deceleration, and vehicle storage to serve the proposed project. The location of primary site access at SR 41 would minimize traffic hazards on Cholame Valley Road and Cholame Road. This private access road would be improved to accommodate project construction and operational traffic. Turkey Flat Road is currently gated, and would continue to be gated during project construction and operation, and there are no improvements proposed to this access.

Response 5.3

The commenter expresses concern about housing demand generated by the proposed project. Similar solar projects in rural areas of San Luis Obispo County, the commenter notes, have encountered problems with illegal temporary housing such as travel trailers housing employees in the vicinity of the project, leading to unsanitary situations and a burden on local law enforcement. As discussed in DEIR Section 4.13, *Transportation/Traffic*, an employee shuttle service would transport 95% of the total construction workforce to and from the project site. Designated employee shuttle park and ride locations would provide parking for the construction workforce.

However, as discussed in DEIR Section 6.0, *Long-Term Impacts*, some of the labor force may elect to temporarily relocate near the project site. Given the remote nature of the project site and the relatively limited availability of lodging in nearby rural communities (including Parkfield,



Cholame, and Shandon), it is assumed that workers would find accommodation in the City of Paso Robles and/or the City of Avenal. Although these cities have the capacity to temporarily house this workforce, this would occur at the exclusion of other travelers and seasonal residents. Additionally, many of the accommodations available, such as recreational campsites, are not designed for long-term temporary residents and such use would deteriorate or degrade the facilities. Nevertheless, with implementation of Mitigation Measure LT-1 for the applicant to prepare and implement a Worker Housing Program, impacts related to housing of the construction workforce would be reduced to a less than significant level, and substantial adverse effects from illegal temporary housing near the project site are not anticipated.

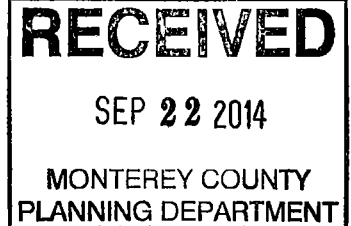
In addition, the commenter states that it is very difficult to serve students enrolled on a temporary basis due to the parent's employment, since most staff and facilities expenses depend on long-term revenues. This comment is acknowledged and will be forwarded to County decision-makers for their consideration. However, pursuant to the analysis of environmental impacts under CEQA, the pertinent question is whether a project would generate enough new students to warrant the construction of new school facilities that could result in physical environmental impacts. As noted in DEIR Section 4.12, *Public Services*, the proposed project would not generate an increase in population that would warrant the construction of new school facilities.



Gonzales, Eva x5186

From: Browder, Chris@CALFIRE [Chris.Browder@fire.ca.gov]
Sent: Monday, September 22, 2014 4:56 PM
To: ceqacomments
Cc: Pangburn, Jonathan@CALFIRE; Owens, John@CALFIRE; Blue, Brennan@CALFIRE; Nehoda, Ken@CALFIRE
Subject: CAL FIRE Comments: CALIFORNIA FLATS SOLAR PROJECT (PLN120294; SCH# 2013041031)

County of Monterey RMA – Planning Department
168 W. Alisal Street, 2nd Floor
Salinas, CA 93901



Dear Sir,

The California Department of Forestry and Fire Protection (CAL FIRE) hereby submits the following comments regarding the proposed draft EIR for the California Solar Flat Project (PLN120294; SCH#2013041031).

4.12.2 Setting

a. Site Access and Internal Roads. "Interior access roads would be maintained to provide emergency access." Due to the nature of the soils and precipitation patterns in the area, it is highly likely that road conditions will become unsuitable for vehicle traffic, including emergency access, during and following peak storm events. This necessitates the purchase of additional equipment for emergency response, specifically a patrol/rescue vehicle (generally classified as a Class VI engine with extrication and other rescue gear on board, in addition to the ALS equipment). This is consistent with 4.12.3b, 3rd paragraph, which states in part, "Additionally, adequate access would depend on road type and conditions, locked gates, weather, and the exact location of the emergency." This is also consistent with 4.12.3b, 4th paragraph, which states in part, "An increase in engine availability would be necessary in the area and would require purchasing one new engine."

6.1

b. Fire Protection Services. "The project site is located in a State Responsibility Area (SRA)." I suggest the removal of the word "a." It should be noted, also, that this area lies outside of a legally formed fire protection district, and as such there is no Fire Authority Having Jurisdiction (FAHJ). "As such, the California Department of Forestry and Fire Protection Services (Cal Fire)..." The official name is the California Department of Forestry and Fire Protection (CAL FIRE). CAL FIRE is in all caps – this should be a global change to the document. Also, the word "Services" needs to be removed from the department name. "... (CAL FIRE) is responsible for providing wildland fire suppression and general fire protection services to the site and surrounding area..." This is incorrect. CAL FIRE has statutory responsibility for wildland fire suppression (vegetation fires) in the SRA. Again, there is no FAHJ, as this area lies outside of a legally formed fire protection district. However, the area is part of an existing annexation process, into the South Monterey County Fire Protection District/CAL FIRE, which will then have responsibility for general fire protection services – this is more commonly referred to as fire and rescue services. "...and general fire protection services to the site and surrounding area, and would provide fire protection services for the proposed project." It is my understanding that the fire protection services for the proposed project will be provided by South Monterey County Fire Protection District/CAL FIRE, after the annexation process is complete through the LAFCO.

6.2

"The nearest Cal Fire (sic) substation..." It is a Forest Fire Station (FFS). The CAL FIRE Parkfield FFS is approximately seven miles northwest of the project site. "...and would be the primary station responsible for responding to an emergency at or near the site during fire season." This needs to say during peak fire season. It is not staffed, generally speaking, outside of peak season. "The Cal Fire (Sic) Parkfield substation (sic) has one deputy assigned to the area..." This needs modification. There is no deputy assigned. Perhaps this is from copying from the law enforcement section. There is one fire engine assigned, with a captain and usually 3 or 4 firefighters, depending on staffing, funding, and availability.

4.12.3 Impact Analysis

b. Project Impacts and Mitigation Measures.

2nd paragraph – “Emergency Access.” 2nd sentence – “Cal-Fire...” This needs to say CAL FIRE. A global change for both Cal Fire and Cal-Fire to CAL FIRE will fix these errors. | 6.3

3rd paragraph – “As part of this analysis, fire service providers were contacted...” There is mention only of CAL FIRE Assistant Chief John Owens. This sentence should change to state that, rather than insinuating, that more than one provider was contacted. 4th sentence – “A cleared area free of overhead obstructions suitable for use as a landing site has not been identified on project site plans.” This needs to be addressed, identified and agreed upon for a location. | 6.4

5th paragraph – “During operation, Cal Fire (sic) would serve as the fire authority for the site. The project would also be required to meet requirements of the California Building Code, California Fire Code, the Monterey County Fire and Building Code, and policies set forth in the Monterey County 2010 General Plan in order to adequately mitigate risks associated with the potential for wildland fires. Impacts related to wildland fire hazards are discussed in section 4.8, Hazard and Hazardous Materials.” CAL FIRE is not the fire authority for the site. Rather, after annexation, South Monterey County FPD/CAL FIRE will serve as the fire authority, as it will be the FAHJ. | 6.5

6th paragraph – “Cal Fire (sic) identified additional hazards and access issues... As such, the department would need to provide specialized training for existing staff to service solar PV project sites.” The obligation for this training lies with the project proponent, not CAL FIRE. | 6.6

Table 4.12-3 Service Provider. Bradley, Lockwood, and King City are not staffed year round. They should also be listed as peak fire season only, or something to designate them as not 24/7/365 operational facilities. | 6.7

PS-1(c) “Prior to the issuance of a construction permit, the application shall enter into an agreement with Cal Fire (sic) to provide fire protection services during the non-peak fire season for the duration of project construction via provision of sufficient funding and other measures necessary to keep the Cal Fire (sic) Parkfield substation (sic) operational during the non-peak fire season.” This agreement should be with South Monterey County FPD/CAL FIRE, not CAL FIRE. | 6.8

All of the above comments relate to Alternative #1, ALS staffing of a CAL FIRE engine on an Amador contract, via South Monterey County FPD/CAL FIRE. Should this alternative not prove feasible (e.g., the annexation does not occur), then Alternative #2 is ALS staffing of a CAL FIRE engine on an Amador contract, via Monterey County. | 6.9

All discussion of fire protection is related to wildland fires. There is no mention of other types of response, except that there needs to be training for photovoltaic project sites. There is no mention of hazardous materials incidents, or even EMS response. There is a mention of ALS staffing, but only in the listing of personnel needed. | 6.10

For additional information or clarification of comments, please contact Jonathan Pangburn at (831) 233-9475.

Thanks very much.

Christopher E. Browder
Deputy Chief, Environmental Protection
Registered Professional Forester #2662
CAL FIRE
California Department of Forestry and Fire Protection
P.O. Box 944246
Sacramento, CA 94244
(916) 653-4995
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Letter 6

COMMENTER: Chris Browder, Deputy Chief, Environmental Protection Cal Fire

DATE: September 22, 2014

Response 6.1

The commenter states that due to the nature of soils and precipitation patterns in the area, it is highly likely that road conditions will become unsuitable for emergency access during and following peak storm events. This would necessitate the purchase of an additional patrol/rescue vehicle for emergency response. In accordance with this comment, the *Fire Services* discussion under Impact PS-1 in Section 4.12, *Public Services*, has been amended as follows. Note that “Cal Fire” was replaced with “CAL FIRE” in response to comment 6.3, below.

Fire Services. As noted previously, the nearest ~~Cal Fire~~CAL FIRE station is located approximately seven miles from the site in Parkfield, and is staffed only during peak fire season (generally May through October). In order to meet the needs of the proposed project and the surrounding community during construction, ~~Cal Fire~~CAL FIRE would require year round staffing during both non-peak and peak fire season (Owens, Personal Communication, July 31, 2013). This could include the increase of staffing by five fire personnel: two Fire Captains and three Fire Apparatus Engineers -Paramedics or three Firefighter II Paramedics. Due to the nature of soils and precipitation patterns in the area, road conditions may become unsuitable for emergency access during and following peak storm events, which An increase in engine availability would be necessary in the area and would require the purchase of one additional patrol/rescue vehicle~~new engine~~ to serve the proposed project (Browder, Personal Communication, September 22, 2014)~~Owens, Personal Communication, July 31, 2013~~).

In addition, Mitigation Measure PS-1(c) has been revised as follows. Note that other revisions to this measure were made in response to comments 6.2 and 6.3, below.

PS-1(c) Fire Protection during Construction. Prior to the issuance of a construction permit, the applicant shall enter into an agreement with ~~Cal Fire~~South Monterey County FPD/CAL FIRE to provide sufficient fire protection services during the non-peak fire season for the duration of project construction via provision of sufficient funding (supplied by the applicant) and other measures necessary to keep the ~~Cal Fire~~South Monterey County FPD/CAL FIRE Parkfield substation operational during the non-peak fire season. The measures to assure sufficient fire protection services in accordance with existing standards shall be subject to the review and approval of ~~Cal Fire~~South Monterey County FPD/CAL FIRE and may include but not be limited to the following: funding (by the applicant) for provision for fire personnel, ~~increasing engine availability in the area~~ purchase of one additional patrol/rescue vehicle or equivalent vehicle capacity, and/or provision of a helicopter landing space in consultation with



~~Cal Fire~~ South Monterey County FPD/CAL FIRE, the use of which will be restricted to emergency use only. A copy of the final, executed agreement shall be submitted to the County prior to the issuance of a construction permit.

The above revisions have also been made to Table 4.12-1 (Impact and Mitigation Summary: Public Services) and Table ES-1 in the *Executive Summary*. In addition, the following reference has been added to Section 8.1.2 (Agencies/Individuals Contacted) in Section 8.0, *References and Preparers*:

Browder, Christopher. Deputy Chief, Environmental Protection, CAL FIRE. Personal Communication. September 22, 2014.

Response 6.2

In Section 4.12 of the DEIR, the commenter suggests the removal of the word “a” from the sentence, “The project is located in a State Responsibility Area (SRA).” The commenter also notes that this SRA lies outside of a legally formed fire protection district, and as such there is no Fire Authority Having Jurisdiction (FAHJ). In addition, the commenter notes that CAL FIRE has statutory responsibility for wildland fire suppression in the SRA but not for general fire protection services (i.e., fire and rescue services). The commenter adds that the project site is part of an existing annexation process, into the South Monterey County Fire Protection District/CAL FIRE, which will then have responsibility for general fire protection services for the proposed project upon LAFCO approval of annexation. These comments are noted, and Section 4.12.2(b) (Fire Protection Services) has been revised as follows:

b. Fire Protection Services. The project site is located in a State Responsibility Area (SRA).¹ Currently, this SRA lies outside of a legally formed fire protection district, so there is no Fire Authority Having Jurisdiction (FAHJ) on the project site (Browder, Personal Communication, September 22, 2014). As such, although the California Department of Forestry and Fire Protection Services (~~Cal Fire~~CAL FIRE) is responsible for providing wildland fire suppression to the site and surrounding area, it is not responsible ~~and~~ for general fire protection services to the site and surrounding area, ~~and would provide fire protection services for the proposed project. However, the project site is part of an existing annexation process into the South Monterey County Fire Protection District (FPD)/CAL FIRE, which would then have responsibility for general fire protection services (i.e., fire and rescue services) for the proposed project upon LAFCO approval of annexation.~~

The commenter also requests that the EIR refer to his agency as the California Department of Forestry and Fire Protection, or CAL FIRE in all capital letters, for short. All references to CAL FIRE have been updated accordingly.

¹ The State Responsibility Area (SRA) is the area of the state where the State of California is financially responsible for the prevention and suppression of wildfires.



Additionally, the commenter suggests corrections to the DEIR's description of the CAL FIRE Parkfield Forest Fire Station (FFS). The second paragraph in Section 4.12.2(b) (Fire Protection Services) in Section 4.12, *Public Services*, has been revised as follows:

The nearest ~~Cal Fire~~ CAL FIRE Forest Fire Station (FFS) ~~substation~~ to the project site is located in Parkfield, which is approximately seven miles northwest of the project site, and would be the primary station responsible for responding to an emergency at or near the site during peak fire season. ~~Cal Fire~~ CAL FIRE typically responds with a minimum of three personnel. The ~~Cal Fire~~ CAL FIRE Parkfield FFS ~~substation~~ has a captain and usually three to four firefighters ~~one deputy~~ assigned to the area (depending on staffing, funding, and availability) and is staffed for five months out of the year, within the period between May and October (Browder, Personal Communication, September 22, 2014; John Owens, Assistant Chief ~~Cal Fire~~ CAL FIRE, San Benito/Monterey Unit, Personal Communication, July 31, 2013).

Response 6.3

The commenter requests a global change in the EIR from "Cal Fire" and "Cal-Fire" to "CAL FIRE." The EIR has been revised accordingly.

Response 6.4

The commenter requests that the DEIR clarify whether more than one fire service provider was contacted as part of the analysis of public services. Impact PS-1 has been updated to clarify that Assistant Chief John Owens of CAL FIRE was the source contacted about emergency access for fire protection on the project site.

In addition, the commenter requests that a cleared area free of overhead obstructions and suitable for use as a landing site for air ambulance services be addressed, identified, and agreed upon for a location. Please refer to Mitigation Measure PS-1(c) in Section 4.12, *Public Services*, of the DEIR, whereby the applicant shall enter into an agreement with the fire service provider to assure sufficient fire protection services during construction, which may include "provision of a helicopter landing space in consultation with CAL FIRE."

Response 6.5

The commenter requests that Impact PS-1 in the DEIR be corrected to state that South Monterey County FPD/CAL FIRE will serve as the fire authority for the project site, upon annexation of the site into that fire protection district. Please refer to the second paragraph in Response 6.2.

Response 6.6

The commenter states that the project proponent, rather than CAL FIRE, would be obligated to provide specialized training for existing CAL FIRE staff to service solar PV sites. In response to this comment, Mitigation Measure PS-1(b) in Section 4.12, *Public Services*, has been revised to incorporate this responsibility, as follows:



PS-1(b) Emergency Response Training. During project construction and operation, on-site staff shall receive emergency response training and shall be informed of all emergency response procedures on a minimum annual basis. Prior to operation of the project, the applicant shall consult with South Monterey County FPD/CAL FIRE staff to educate them in emergency response procedures for solar power facilities. In addition, on-site fire suppression equipment (e.g. fire extinguishers) shall be maintained on-site for the duration of project operation.

Refer also to response 16.139, which also addresses responsibility for specialized training for fire protection staff.

Response 6.7

The commenter requests that Table 4.12-3 (Average Response Time for Fire Service Providers) note that CAL FIRE's stations in Bradley, Lockwood, and King City are staffed only for peak fire season but not year-round. In response to this comment, the following revisions have been made to the sources and notes section of Table 4.12-3:

Sources: John Owens, Assistant Chief, Cal Fire CAL FIRE San Benito – Monterey South Division. Christopher Browder, Personal Communications, September 22, 2014.

Notes:

1. The existing average response times for CAL FIRE stations in Bradley, Lockwood, and King City only apply to the portion of the year when these stations are staffed (peak fire season).

n/a - Cal Fire CAL FIRE does not have a set response time goal for State Response Areas. Response times are variable based on availability of engines and time of year (depending on preparedness levels).

Response 6.8

The commenter requests that prior to issuance of a construction permit, the project applicant enter into an agreement with South Monterey County FPD/CAL FIRE (rather than CAL FIRE) to provide fire protection services during the non-peak fire season for the duration of project construction. Please refer to the second paragraph in Response 6.2.

Response 6.9

The commenter states that if Advanced Life Support (ALS) staffing of a CAL FIRE engine on an Amador contract, via South Monterey County FPD/CAL FIRE, should prove infeasible (i.e., annexation into that fire protection district does not occur), then the alternative would be ALS staffing of a CAL FIRE engine on an Amador contract, via Monterey County. The comment is noted.

Response 6.10

The commenter states that the DEIR's discussion of fire protection only relates to wildland fires, not hazardous materials incidents or emergency medical services (EMS) response. DEIR Section 4.8, *Hazards and Hazardous Materials*, includes a discussion of hazardous materials incidents. In DEIR Section 4.12, *Public Services*, Impact PS-1 addresses emergency access and response times for EMS response.

The commenter adds that the DEIR mentions ALS staffing, but only in the listing of personnel needed. This comment is noted.



Letter 7

STATE OF CALIFORNIA

EDMUND G. BROWN, JR. Governor

DEPARTMENT OF INDUSTRIAL RELATIONS
DIVISION OF OCCUPATIONAL SAFETY AND HEALTH

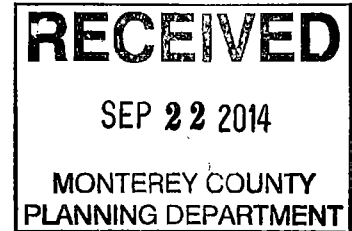
Headquarters Office
1515 Clay Street, 19th Floor
Oakland, CA 94612
Tel: (510) 286-7000 Fax: (510) 286-7037



Juliann Sum, Acting Chief

September 22, 2014

Delinda Robinson, Senior Planner
Monterey County RMA-Planning Department
168 West Alisal Street, Second Floor
Salinas, CA 93901



Re: Coccidiomycosis and California Flats Solar, PLN 120294 Draft Environmental Impact Report (DEIR)

Dear Ms. Robinson,

I am writing in response to the request for comment by the Division of Occupational Safety and Health on the DEIR for the California Flats Solar project.

The Division cannot take an official position as to whether the DEIR contains provisions adequate to comply with Cal/OSHA regulations relevant to protecting employees from Coccidiomycosis, or Valley Fever. It is the obligation of employers to effectively implement all California Title 8 safety and health regulations necessary to protect their employees--whether or not the EIR specifically addresses those regulatory requirements.

7.1

This letter will discuss relevant regulations and provide information and suggestions related to mitigation of Valley Fever risk without directly critiquing the specific contents of the DEIR--except for the following aspect. In AQ-6(a), the DEIR requires the project applicant to consult with Cal/OSHA Enforcement in developing its Valley Fever Management Plan. Please note that while the Division's staff is always happy to discuss health and safety issues with employers, it is not the Division's role to guarantee that complex written health and safety plans will be effective when implemented. Please note that the Division has already published advice to employers and employees regarding work-related Valley Fever, found here: <http://www.dir.ca.gov/dosh/valley-fever-home.html> . This web resource contains links to other substantial sources of information, including the Valley Fever information pages of the California Department of Public Health (CDPH) and of the United States Center for Disease Control (CDC). This web resource also contains a link to citations that the Division issued after many employees contracted Valley Fever while building a solar plant in San Luis Obispo County. Please also note that construction contractors must acquire a permit from the nearest enforcement office of the Division if the work involves construction of an excavation greater than five feet in depth or of a structure more than 36 feet in height [<http://www.dir.ca.gov/title8/341.html>]. During the process of securing this permit, Valley Fever mitigation plans might be discussed.

7.2

The Division's web resource on Valley Fever lists five Title 8 regulations that are applicable with regard to Valley Fever protection:

7.3

342 (Reporting Work-Connected Fatalities and Serious Injuries),

3203 (Injury and Illness Prevention),
5141 (Control of Harmful Exposures),
5144 (Respiratory Protection) and
14300 (Employer Records-Log 300).

An additional relevant regulation is: 8CCR 5145 Media for Allaying Dusts, Fumes, Mists, Vapors, and Gases. This regulation requires adequate wetting to suppress harmful dusts. In the context of Valley Fever risk, soil should be wetted before it is disturbed and continuously during the activity, such as grading or excavating. Other allaying methods might include the prompt (meaning as soon as feasible or practicable) application of soil stabilizers. 8 CCR 5141 requires the use of engineering and administrative controls. These might include prompt re-vegetation of disturbed areas. When the preceding methods cannot be employed on the same day as soil is disturbed, methods such as utilization of tarps for spoils piles, seeding, paving and laying of building pads should be considered. In this context, all sweeping of dust should be *wet*-sweeping. Engineering controls might also include air conditioned HEPA-filtered equipment cabs.

7.3

Administrative controls could include the provision of eating areas either inside or otherwise sheltered from wind-blown dust, and workers should be required to be clean before eating. Workers should be required to change clothes at the end of shifts, and their personal vehicles should be either kept off-site or otherwise protected from wind-blown dust or cleaned with water daily. Construction vehicles should also be cleaned with water when leaving the site. Other administrative controls might include arranging work so workers not in protected machine cabs are as far as possible and upwind of earth moving equipment or inside during the soil disturbing activities such as grading or excavating. Effective administrative controls might entail suspension of work when winds are high and dust clouds are visible. Some research indicates that wind speeds as low as two or three miles an hour may be sufficient to suspend particles the size of spores, and higher wind velocities clearly could send spores over large distances.

7.4

Engineering and administrative controls alone will likely not be sufficiently effective to protect all workers during soil disturbing activities, so a comprehensive respiratory protection program is nearly always necessary. A comprehensive respiratory protection program involves a continuing assessment of the changing job-site so the degree of hazard and consequent choice of NIOSH-approved respirator can be constantly reviewed. Some conditions may require the use of respirators more protective than filtering face piece respirators (for example, PAPR). All potentially exposed workers should be included in the respiratory protection program.

7.5

The Injury and Illness Prevention regulation requires that workers be adequately and effectively trained. For soil disturbing activities in Coccidiomycosis-endemic areas, this means all potentially exposed workers must be adequately trained on the signs and symptoms of the disease. One place these are listed is the CDPH fact sheet on Valley Fever which can be found here: <http://www.cdph.ca.gov/programs/hesis/Documents/CocciFact.pdf>. To be effective, training should include the fact that certain ethnic groups and immune-compromised persons are at far greater risk of becoming seriously ill with Valley Fever.

7.6

Occurrence of Valley Fever in any occupationally exposed worker triggers several reporting requirements. If the worker is hospitalized, the nearest Division Enforcement office must be notified pursuant to 8CCR 342. Even if the employee is not hospitalized, the employer must record

7.7

the illness on its Cal/OSHA 300 log and file an Employer's Report of Occupational Injury or Illness form. The treating physician must file a Doctor's First Report of Injury form. The treating physician is also required by Title 17 Section 2500 to report the illness to the local public health officer. It is critical that contractors who will be disturbing soil in Coccidiomycosis-endemic areas to make prior arrangements with health care providers who are familiar with Valley Fever diagnosis and treatment. On the CDPH website mentioned above is a link to a free online continuing medical education program for medical professionals on Valley Fever.

7.7

I hope that the above discussion of some of the relevant regulations is informative about the Division's approach to protecting employees from the risk of Valley Fever.

Sincerely,

Michael Horowitz
Senior Safety Engineer/Industrial Hygienist
Cal/OSHA Research and Standards Unit
510-286-7009

Letter 7

COMMENTER: Michael Horowitz, Senior Safety Engineer / Industrial Hygienist, California Department of Industrial Regulations, Division of Occupational Safety and Health

DATE: September 22, 2014

Response 7.1

The commenter notes that the Division of Occupational Safety and Health (Cal/OSHA) cannot take an official position as to whether the DEIR contains provisions adequate to comply with Cal/OSHA regulations relevant to protecting employees from Coccidiomycosis (Valley Fever), and that it is the obligation of employers to effectively implement all of California Title 8 safety and health regulations necessary to protect employees, whether or not the DEIR specifically addresses those regulatory requirements. Impact AQ-6 has been revised to clarify that the project applicant and all construction contractors operating on the site would be required implement all of California Title 8 safety and health regulations, as follows:

The project applicant and all construction contractors operating on the site would be required to implement all of California Title 8 safety and health regulations necessary to protect employees. As described in Section 2.0, Project Description, the project includes APM-3 through APM-5, which would reduce fugitive dust emissions associated with construction of the proposed project. Standard construction Best Management Practices (BMPs) to minimize fugitive dust emissions, as well as standard erosion control measures, would minimize potential hazards associated with the release of fungal spores and are consistent with the recommendations of the California Department of Public Health...

Response 7.2

The commenter notes that Mitigation Measure AQ-6(a) in the DEIR requires the project applicant to consult with the Cal/OSHA Compliance Program in developing the required Valley Fever Management Plan. The commenter notes that it is not Cal/OSHA's role to guarantee that health and safety plans will be effective when implemented. The commenter provides applicable resources, including links to advice to employers and employees regarding work-related Valley Fever, Valley Fever information pages from the California Department of Public Health and the United States Center for Disease Control, and citations that Cal/OSHA has issued in response to Valley Fever cases associated with a solar project in San Luis Obispo County. The DEIR discusses the potential environmental impact associated with Valley Fever throughout Impact AQ-6, including the required Mitigation Measures AQ-6(a) through AQ-6(e). In addition, as discussed in the DEIR, the project would be required to comply with California health and safety regulations intended to protect employees.

The commenter also notes that construction contractors must acquire a permit if construction work involves construction of an excavation greater than five feet in depth or of a structure more than 36 feet in height, and that Valley Fever mitigation plans may be discussed during the process of



securing this permit. As discussed in the DEIR, the project would be required to comply with State and local permit requirements.

Response 7.3

The commenter notes that the Cal/OSHA web resource on Valley Fever lists applicable Title 8 regulations (342, 3203, 5141, 5144, and 14300). The commenter also describes the additional relevant regulation 8 CCR 5145 (Media for Allaying Dusts, Fumes, Mists, Vapors, and Gases), which requires adequate wetting to suppress harmful dusts. The commenter indicates that soil should be wetted before it is disturbed and continuously during grading or excavating activity, and lists other applicable allaying methods. The commenter also describes 8 CRR 5141, which requires the use of engineering and administrative controls, including revegetation of disturbed areas, utilization of tarps for spoils piles, seeding, paving and laying of building pads, and air-conditioned HEPA-filtered equipment cabs. Finally, the commenter notes that all sweeping of dust should be wet sweeping.

As discussed in the DEIR, the project would be required to comply with applicable regulations and State and local permit requirements. The DEIR discusses the potential environmental impact associated with Valley Fever throughout Impact AQ-6, including the required Mitigation Measures AQ-6(a) through AQ-6(e), as well as the dust control measures in Mitigation Measure AQ-2(a). Mitigation Measure AQ-2(a) describes in detail requirements for water suppression of dust during soil disturbance, as well as additional dust suppression measures and the provision of HEP-filtered air-conditioned enclosed cabs on heavy equipment. Mitigation Measure AQ-2(a) also notes the dust control measures identified in the proposed Habitat Restoration and Revegetation Plan (refer to Biology Mitigation Measure B-2[b]). Mitigation Measures AQ-6(a) through AQ-6(e) describe additional engineering and administrative controls to be included in the required Valley Fever Management Plan.

Response 7.4

The commenter lists several examples of administrative controls for Valley Fever. All of these control measures are included in Mitigation Measures AQ-6(a) through AQ-6(e), which describe administrative controls that may be included in the required Valley Fever Management Plan.

Response 7.5

The commenter states that engineering and administrative controls alone may not be sufficiently effective to protect all workers during soil disturbing activities, and recommends a comprehensive respiratory protection program involving ongoing assessment to ensure that appropriate respirators are used by all potentially exposed workers. Mitigation Measure AQ-6(a) requires the applicant to prepare a Valley Fever Management Plan (VFMP) that includes specific measures to reduce the potential for exposure to Valley Fever, which would minimize the risk of dust exposure for construction personnel and off-site receptors, and would ensure that construction personnel are adequately protected from exposure to Valley Fever during grading and other earth-moving activities on-site. Mitigation Measure AQ-6(a) includes a provision for respirator use, as may be mandated by the required job hazard analysis, which states that the “respiratory protection program shall be implemented in accordance with the applicable Cal/OSHA Respiratory



Protection Standard (8 CCR 5144).” The Cal/OSHA Respiratory Protection Standard requires that the respiratory protection program include “procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators.” Implementation of the required mitigation in accordance with the Cal/OSHA Respiratory Protection Standard (8 CCR 5144) would ensure that appropriate respirators are used by all potentially exposed workers.

Response 7.6

The commenter notes that the Injury and Illness Prevention regulation requires workers to be adequately and effectively trained on the signs and symptoms of Coccidiomycosis. The commenter recommends that training include the fact that certain ethnic groups and immune-compromised persons are at greater risk of becoming ill with Valley Fever. Mitigation Measure AQ-6(d) describes the required Valley Fever Worker Training Program and Safety Measures. Mitigation Measures AQ-6(d) has been revised to reflect the commenter’s recommendation, as follows:

AQ-6(d) Valley Fever Worker Training Program and Safety Measures. Prior to any project grading activity, the primary project construction contractor shall prepare and implement a worker training program that describes potential health hazards associated with Valley Fever, common symptoms, proper safety procedures to minimize health hazards, and notification procedures if suspected work-related symptoms are identified during construction, including the fact that certain ethnic groups and immune-compromised persons are at greater risk of becoming ill with Valley Fever. The objective of the training shall be to ensure the workers are aware of the danger associated with Valley Fever...

The above revisions have also been made to Table 4.3-1 (Impact and Mitigation Summary: Air Quality) and Table ES-1 in the *Executive Summary*.

Response 7.7

The commenter describes the reporting requirements for occupationally exposed workers to Valley Fever. As discussed in the DEIR, the project would be required to comply with applicable regulations and State and local permit requirements. In addition, Mitigation Measure AQ-6(a) describes the reporting measures to be included in the required Valley Fever Management Plan, which are consistent with County and State requirements, and include (revisions to this language are discussed in detail under Response 16.25):

- ~~Work with a medical professional~~ Each primary employer of contracted workers will be required by the terms and conditions of their contract for services to retain and consult with an Occupational Medicine Professional, licensed by either the Medical Board of California or the Osteopathic Board of California to develop a protocol to medically evaluate employees who develop symptoms of Valley Fever. Reporting of symptoms of Valley Fever and diagnosed



cases of Valley Fever must occur consistent with ~~Cal/OSHA~~ County and State requirements.

The above revisions have also been made to Table 4.3-1 (Impact and Mitigation Summary: Air Quality) and Table ES-1 in the *Executive Summary*.





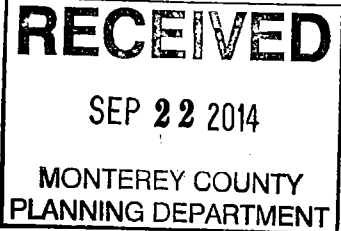
SAN LUIS OBISPO COUNTY

DEPARTMENT OF PLANNING AND BUILDING

Promoting the Wise Use of Land - Helping to Build Great Communities

September 22, 2014

Delinda Robinson
Monterey County Resource Management Agency
Planning Department
168 W. Alisal St., 2nd Floor
Salinas, CA 93901



Subject: California Flats Solar Project - Draft Environmental Impact Report Comments

Dear Ms. Robinson,

Thank you for the opportunity to comment on the Draft EIR for the California Flats Solar Project. The County of San Luis Obispo is a Responsible Agency and will be considering approval of a Conditional Use Permit for the portion of the project located within San Luis Obispo County. Once the County of Monterey has taken final action on the project, the County of San Luis Obispo as a Responsible Agency will rely upon the EIR when processing the Conditional Use Permit. 8.1

The County has reviewed the Draft EIR and has determined that the Draft EIR adequately evaluates the portion of the project within San Luis Obispo County. Based on the current project description and available information, the County will likely be able to rely upon the EIR when processing the Conditional Use Permit. The County has no comments regarding the adequacy of the EIR at this time. We look forward to further coordination as the project continues to move forward. 8.2

If you have any questions, please feel free to contact me at rfitzroy@co.slo.ca.us or (805) 781-5179.

Sincerely,

A handwritten signature in black ink, appearing to be "Rob Fitzroy", written over a horizontal line.

Rob Fitzroy,
Project Manager

Letter 8

COMMENTER: Rob Fitzroy, Project Manager, San Luis Obispo County Department of Planning and Building

DATE: September 22, 2014

Response 8.1

The commenter notes that the County of San Luis Obispo is a Responsible Agency for the proposed project and, after the County of Monterey has taken final action on the project, will rely upon the EIR in considering approval of a Conditional Use Permit for the portion of the project located within the San Luis Obispo County. Consistent with this comment, DEIR Section 2.0, *Project Description*, notes that discretionary approval of a Conditional Use Permit from San Luis Obispo County may be required for grading, temporary construction yards along SR 41, and/or temporary park and ride locations.

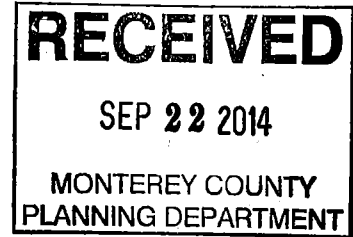
Response 8.2

The commenter states that the County has reviewed the DEIR and determined that it adequately evaluates the portion of the project within San Luis Obispo County. This comment is acknowledged.





Air Pollution Control District
San Luis Obispo County



September 22, 2014

Delinda Robinson
Monterey County Resource Management Agency
Planning Department
168 W. Alisal Street, 2nd Floor
Salinas, CA 93901
Submitted via email to: CEOAccomments@co.monterey.ca.us

Subject: Comments on DEIR for California Flats Solar Project
(PLN120294; SCH#2013041031)

Dear Ms. Robinson:

Thank you for including the San Luis Obispo County Air Pollution Control District (SLOCAPCD) in the environmental review process. We have completed our review of the proposed California Flat 280-megawatt solar power facility in the unincorporated southeastern Monterey County, seven miles southeast of Parkfield and 25 miles northeast of Paso Robles.

The San Luis Obispo (SLO) County aspect of this project would be improvements to and use of the project's access road, and the construction and utilization of two temporary construction staging areas. This aspect requires a SLO County Conditional Use Permit (CUP; DRC2014-00016). Although the project is located in the southeastern most corner of Monterey County, the project's primary access to the project site during both construction and operation would be provided in SLO County. This access is by an existing private ranch road from SR 41 which is approximately 1.14 miles northeast of Cholame Valley Road. The portion of the project's access road that is in SLO County is 5.6-miles in length.

In addition to the improvements to the access road and SR 41, two temporary staging areas would also be established within SLO County and the California Department of Transportation ("Caltrans") right-of-way for the purposes of constructing the proposed SR 41 improvements at the existing access road and receiving deliveries, along with providing areas for vehicle queuing. These staging areas would be located on the northwest and southeast shoulder areas of SR 41, as well as along the shoulder of the existing private ranch access road. The northwest staging area is approximately four acres and would be used throughout construction for temporary construction staging, vehicle

9.1

queuing and deliveries. The southeast staging area would be approximately 0.5 acre. This area would be used during construction of SR 41 improvements.

The portion of this project that is located in SLO County also resides in the non-attainment region of the county for the Federal ozone standard. Mitigation measures to reduce the project's impact below the SLOCAPCD's CEQA significant threshold for ROG + NOx are necessary to ensure the ongoing air quality improvements for that area continue.

9.1

The following are SLOCAPCD comments that are pertinent to this project.

GENERAL COMMENTS

As a commenting agency in the California Environmental Quality Act (CEQA) review process for a project, the SLOCAPCD assesses air pollution impacts from both the construction and operational phases of a project, with separate significant thresholds for each. **Please address the action items contained in this letter that are highlighted by bold and underlined text.**

Construction Phase Exceedance EIR:

Based on the modeled DEIR emission estimates, the construction phase would exceed the SLOCAPCD's construction emission thresholds identified in Table 2-1 of the CEQA Air Quality Handbook for particulate matter (PM), diesel PM and ozone precursors. The air quality mitigation measures [AQ-2(a) and (b)] included in the DEIR are focused primarily on reducing fugitive dust, but fail to include proven, feasible measures that reduce ozone precursors and diesel PM. The SLOCAPCD disagrees with the Class 1 classification for the construction emissions impact. There have been many projects similar to the California Flats Solar Project, that have exceeded the SLOCAPCD's significance thresholds for ROG+NOX, PM and diesel PM that have implemented mitigation measures to get the project below our significance threshold (e.g. incorporated on-site mitigation measures and off-site mitigation measures).

9.2

The SLOCAPCD recommends the inclusion of mitigation measures to reduce all air pollutions below the significance thresholds as defined in the SLOCAPCD CEQA Handbook. Air quality mitigation measures AQ 2 (a) and (b) should be modified to include all exceeded air pollutants and conditioned as follows to demonstrate mitigation measures have been sufficiently addressed:

Prior to grading permit issuance, and at least six months before construction activities are to begin, the applicant needs to demonstrate how the construction phase impacts will be below the level of significance as identified in the SLOCAPCD's CEQA Handbook. The SLOCAPCD recommends on-site mitigation from construction activities to the greatest extent possible. Potential SLOCAPCD construction phase mitigation measures are listed in Chapter 2 of the SLOCAPCD CEQA Handbook.

SLOCAPCD's protocol for projects that cannot mitigate their construction emissions below thresholds of significance with on-site mitigation is for these projects to develop a Construction Activity Management Plan that includes off-site mitigation to bring ozone

9.3

precursor exceedances to a level of insignificance. We recommend this approach for the SLOCAPCD component of this project.

Construction Activity Management Plan

If the estimated construction emissions from the actual fleet are expected to exceed either of the SLOCAPCD Quarterly Tier 2 thresholds of significance (ROG+NO_x and/or PM) after the standard and BACT measures are factored into the estimation, then a SLOCAPCD approved CAMP (See the SLOCAPCD's 2012 CEQA Handbook's Technical Appendix 4.5 for CAMP Guidelines) and off-site mitigation need to be implemented in order to reduce potential air quality impacts to a level of significance. **The CAMP should be submitted to the SLOCAPCD for review and approval prior to the start of construction and should include, but not be limited to, the following elements:**

- A Dust Control Management Plan that encompasses all, but is not limited to, dust control measures that were listed above in the "dust control measures" section;
- Tabulation of on and off-road construction equipment (age, horse-power and miles and/or hours of operation);
- Schedule construction truck trips during non-peak hours to reduce peak hour emissions;
- Limit the length of the construction work-day period, if necessary; and,
- Phase construction activities, if appropriate.

In addition, the DEIR references emission reduction strategies such use of Tier 3 off-road equipment engines and transportation demand management (TDM), such as shuttle service for employees, as means to reduce construction phase emissions. If these, and other strategies, were used in the construction phase modeling as mitigation to project impacts, they also need to be included in the conditions of approval to ensure the emission reductions are realized. Currently, there are no mitigation measures in the DEIR that specify that Tier 3 engines or TDM shall be required to ensure that the DEIR modeled emissions are consistent with the actual emissions from the project. **The SLOCAPCD recommends that all emission reduction strategies modeled in the DEIR for construction phase emissions be included as mitigation measures in conditions of approval for the project.**

Construction Phase Fugitive Dust Mitigation Measure Conditions to Yield a Class 2 Impact for PM10: The SLOCAPCD recognizes that the results of the project's construction phase air quality modeling indicates that even with modeled fugitive dust mitigation, the PM10 impacts exceed the SLOCAPCD's CEQA Significance Threshold as stated in Table 2-1 of the 2012 CEQA Air Quality Handbook. With regards to short-term construction PM10 emissions, SLOCAPCD also recognizes that the PM10 mitigation modeling may not be able to accurately calculate the emission reduction potential of all SLOCAPCD approved dust mitigation measures required in the DEIR. **With full implementation of all the PM10 mitigation measures, and ongoing compliance with SLOCAPCD's 20% opacity limit (SLOCAPCD Rule 401; i.e. from anywhere on-site 20% opacity is not exceeded for greater than 3 minutes in any 60 minute period) and SLOCAPCD's nuisance rule (Rule 402), SLOCAPCD deems the construction project's PM10 impacts shall be at a level of insignificance.**

Construction Class 1 Impacts for PM10

The SLOCAPCD recommends the following construction phase PM10 conditions be added to the DEIR and that the EIR's residual impact be changed to Class 2, Significant but Mitigable.

9.3

9.4

9.5

The SLOCAPCD recommends that the DEIR AQ-2(a) Dust Control Measures be aligned with the following conditions to ensure that this project's construction phase fugitive dust impacts are managed and mitigated to a less than significant impact:

1. The project shall fully implement the SLOCAPCD approved construction dust mitigation measures as defined in Section 2.4 Fugitive Dust Mitigation Measures in the 2012 SLOCAPCD CEQA Handbook;
2. Should the FEIR dust mitigation measures prove to be ineffective at eliminating violations of SLOCAPCD Rules 401 and/or 402, then the project shall promptly work with the SLOCAPCD Compliance Division to define additional and/or alternative measures to correct mitigation deficiencies; and
3. The SLOCAPCD Compliance Division shall have final enforcement authority to ensure that the project promptly addresses opacity and nuisance rule violations.

9.5

Naturally Occurring Asbestos

Naturally occurring asbestos (NOA) has been identified by the state Air Resources Board as a toxic air contaminant. Serpentine and ultramafic rocks are very common throughout California and may contain naturally occurring asbestos. The SLOCAPCD has identified areas throughout the County where NOA may be present (see the SLOCAPCD's 2012 CEQA Handbook, Technical Appendix 4.4). The portion of this project is located in a candidate area for Naturally Occurring Asbestos (NOA), and the following requirements apply. Under the ARB Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (93105), **prior to any construction activities at the site, the project proponent shall ensure that a geologic evaluation is conducted to determine if the area disturbed is exempt from the regulation. An exemption request must be filed with the SLOCAPCD.** If the site is not exempt from the requirements of the regulation, the applicant must comply with all requirements outlined in the Asbestos ATCM. This may include development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by the SLOCAPCD. More information on NOA can be found at <http://www.slocleanair.org/business/asbestos.php>.

9.6

Again, thank you for the opportunity to comment on this proposal. If you have any questions or comments, feel free to contact me at 781-5912.

Sincerely,



Andy Mutziger
Air Quality Specialist

cc: Rob Fitzroy, SLO County Planning & Building
Amy Clymo, Monterey Unified APCD
John Gaglioti, California Flats Solar, LLC
Scott Dawson, California Flats Solar, LLC

Letter 9

COMMENTER: Andy Mutziger, Air Quality Specialist, San Luis Obispo County Air Pollution Control District

DATE: September 22, 2014

Response 9.1

The commenter states that they have reviewed the project, and describes the portions of the project within San Luis Obispo County, which include improvements to and use of the project's access road, and construction and utilization of two temporary construction staging areas. The commenter notes that the project components within San Luis Obispo County require a Conditional Use Permit (CUP; DRC2014-00016). The commenter also notes that the portion of the project within San Luis Obispo County also resides in the non-attainment region of the County for the Federal ozone standard, and that mitigation measures to reduce the project's impact below the SLOAPCD's CEQA significance threshold for ROG + NO_x are necessary to ensure the ongoing air quality improvements for that area continue. Potential impacts within the SCCAB are discussed in Section 4.3.3(d) of the DEIR, under Impact AQ-8 (SLOAPCD and SJVAPCD Air Quality Management Plan [AQMP] consistency), Impact AQ-9 (short-term construction emissions within SCCAB), and Impact AQ-10 (long-term air pollutant emissions in SCCAB). The analysis of potential impacts within the SCCAB finds that:

- Impact AQ-8 – The project would be consistent with the local SLOAPCD air quality management plan (2001 Clean Air Plan [2001 CAP]), based upon minimal ongoing employee and other travel to and from the site (Class III, *less than significant*);
- Impact AQ-9 – The project's short-term emissions from construction vehicles traveling to and from the site within the SCCAB would exceed the SLOAPCD's CEQA thresholds for ROG, NO_x, diesel PM, and fugitive PM₁₀ emissions (Class I, *significant and unavoidable*); and that
- Impact AQ-10 – The project would not violate or contribute substantially to an existing or project air quality violation in the SCCAB during project operation (Class IV, *beneficial*).

The commenter requests that the specific action items in comments 9.2 through 9.6 be addressed in the DEIR. Refer to responses 9.2 through 9.6.

Response 9.2

The commenter notes that, as described in Impact AQ-9 of the DEIR, construction emissions would exceed the SLOAPCD quarterly Tier 1 thresholds for ROG + NO_x and diesel PM, as well as the SLOAPCD quarterly thresholds for PM₁₀. The commenter states that Mitigation Measures AQ-2(a) and AQ-2(b) focus primarily on reducing fugitive dust, and that the required mitigation does not include adequate measures to reduce ozone precursors and diesel PM. The commenter further states that SLOAPCD disagrees with the determination that construction impacts within the SCCAB would be significant and unavoidable, and recommends inclusion of mitigation measures to reduce all air pollutants below the significance thresholds as defined in the SLOAPCD CEQA



Handbook. Chapter 2 of the SLOAPCD *CEQA Handbook* lists a variety of measures for reducing dust, ozone precursors, and diesel PM, including:

- Diesel idling restrictions;
- Standard measures to reduce ozone precursor and diesel PM emissions from construction equipment;
- Best Available Control Technology (BACT) for Construction Equipment; and
- Construction Activity Management Plan (CAMP) and off-site mitigation.

The DEIR describes the diesel idling restrictions that apply to the project, including compliance with Section 2485 of Title 13, the California Code of Regulations and Section 2449(d)(3) of the California Air Resources Board's In-Use off-Road Diesel regulation. Mitigation Measure AQ-2(b) includes idling restrictions that would reduce ozone precursor and diesel PM emissions, and has been revised to include standard measures to reduce ozone precursor and diesel PM emissions from construction equipment, as follows:

- AQ-2(b) Emission-Reduction Measures for Construction Equipment Idling Restrictions**. The Project Applicant and/or Contractor shall be responsible for implementing the following mitigation measures throughout the duration of construction. Prior to the issuance of any grading permit, the Project Applicant and/or Contractor shall submit construction drawings to RMA-Planning and RMA - Building Services for review and approval that include the following measures on all plans and specifications:
- Idling Restrictions Near Sensitive Receptors for Both On and Off-Road Equipment (applicable to northernmost edge of the project site only), including:
 - Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
 - Diesel idling within 1,000 feet of sensitive receptors is not permitted;
 - ~~Use of alternative fueled equipment is recommended whenever possible;~~ and,
 - Signs that specify the no idling requirements must be posted and enforced at the construction site.
 - NO_x and Diesel PM Emissions Reduction Measures for Construction Equipment
 - All construction equipment shall be maintained in proper tune according to manufacturer's specifications;
 - All off-road and portable diesel powered equipment shall be fueled with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);
 - Use of on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines;
 - On- and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the



- designated queuing areas and or job sites to remind drivers and operators of the 5-minute idling limit;
- Use of electrically-powered equipment when feasible;
- Gasoline-powered equipment shall be substituted in place of diesel-powered equipment, where feasible; and
- If available, use of alternatively fueled construction equipment on-site, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.

In addition, a new mitigation measure which requires the use of Tier 3 construction equipment, consistent with SLOAPCD recommendations for BACT for Construction Equipment, has been incorporated into the DEIR to ensure that air quality impacts are mitigated to the maximum extent feasible, as follows:

AQ-2(c) Tier 3 Construction Equipment. All off-road construction diesel engines not registered under the California Air Resources Board's Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower (hp) or more, shall meet, at a minimum, the Tier 3 California Emissions Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, section 2423(b)(1) unless such engine is not available for a particular item of equipment.

Construction or trucking companies with fleets that do not have engines in their fleet that meet the Tier 3 standards identified in the above two measures (e.g. captive or NOx exempt area fleets) may be eligible by proving alternative compliance. If a Tier 3 (or equivalent alternative compliance) engine is not available for any off-road engine larger than 50 hp, that engine will have tailpipe retrofit controls that reduce exhaust emissions of NO_x and PM to no more than Tier 2 emission levels. Tier 1 engines will be allowed on a case-by-case basis only when the project applicant has documented that no Tier 2 equipment or emissions equivalent retrofit equipment is available for a particular equipment type that must be used to complete project construction. This shall be documented with signed written correspondence by the appropriate construction contractor along with documented correspondence with at least two construction equipment rental firms. A list of the construction equipment and the associated EPA Tier shall be submitted to the County of Monterey RMA-Planning Department prior to the issuance of a grading permit to verify implementation of measure.

In response to the commenter's recommendation that the DEIR include a CAMP and off-site mitigation to reduce construction impacts within the SCCAB to a less than significant level, it should be noted that preparation of a Final Construction Management Plan (CMP) is included



among the applicant proposed measures (or APMs) described in Section 2.0, *Project Description*. The CMP (APM-2) would include measures to ensure on-going coordination with adjacent property owners during project construction. The DEIR has been revised to include mitigation requiring that the CMP developed pursuant to APM-2 include provisions recommended in the SLOAPCD *CEQA Handbook*, as follows:

Mitigation Measures. Mitigation Measures AQ-2(a), ~~and~~ AQ-2(b), and AQ-2(c) are required for the proposed project, and are based on SLOAPCD recommendations for mitigating construction emission thresholds of significance. These measures are consistent with standard MBUAPCD and SLOAPCD recommended measures, and would ensure that construction-phase mitigation is uniformly applied across the project. ~~Thus, separate additional mitigation is not required for the portion of the project within SLOAPCD.~~ In addition, SLOAPCD CEQA Air Quality Handbook (April 2012) requires projects that cannot mitigate their construction emissions below the SLOAPCD thresholds of significance with on-site mitigation to develop a Construction Activity Management Plan that includes off-site mitigation to reduce emissions below the applicable threshold. Preparation of a Final Construction Management Plan (CMP) is required by APM-2, described in Section 2.0, *Project Description*. Therefore, the following mitigation measure is required to minimize construction emissions within the SCCAB:

AQ-9 Construction Management Plan Requirements. The Final Construction Management Plan (CMP) proposed as Applicant Proposed Measure 2 (APM-2) shall include, but not be limited to, the following construction emissions reduction measures, recommended by SLOAPCD:

- Best Available Control Technology for Construction equipment (BACT) measures to reduce construction emissions, which can include:
 - Expanding use of Tier 3 and Tier 4 off-road and 2010 on-road compliant engines;
 - Repowering equipment with the cleanest engines available;
 - Installing California Verified Diesel Emission Control Strategies. These strategies are listed at: <http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>
- Schedule construction activities to minimize the amount of large construction equipment operating simultaneously during any given time period; and
- Scheduling of construction truck trips during non-peak hours to reduce peak hour emissions.

The CMP shall be submitted to the County of Monterey RMA-Planning Department for review and approval.

Significance After Mitigation. ~~Even w~~ With implementation of these m
Mitigation m Measures AQ-2(a), AQ-2(b), AQ-2(c), and AQ-9, temporary emissions



within the SCCAB during construction would be reduced to the maximum extent feasible, but would continue to exceed ambient air quality standards within the SCCAB. Therefore, the impact would be significant and unavoidable.

The provisions required to be included in the CMP by Mitigation Measure AQ-9 do not include off-site mitigation. Off-site mitigation fees generally provide funding for off-site projects that would reduce long-term air pollutant emissions in a proportionate amount to the identified impact. With regard to the proposed project, the project itself would result in a long-term reduction in air pollutant emissions associated with the project's generation of renewable energy that would reduce demand for new fossil fuel-fired facilities. Regionally, the proposed project would reduce operational air pollutant emissions, as identified in Impact AQ-3 of the DEIR. Therefore, off-site mitigation is not required for the project; however, short term construction emissions within the SCCAB would remain significant and unavoidable, as identified in Impact AQ-9.

The above revisions to mitigation measures have also been made to Table 4.3-1 (Impact and Mitigation Summary: Air Quality) and Table ES-1 in the *Executive Summary*.

Response 9.3

The commenter states that SLOAPCD protocol for projects that cannot mitigate their construction emissions below SLOAPCD thresholds using on-site mitigation is for these projects to develop a Construction Activity Management Plan (CAMP) that includes off-site mitigation, and recommends that the DEIR include these provisions for the portion of the project within the SCCAB. As described in response 9.2, above, the DEIR has been revised to include Mitigation Measure AQ-9, which requires the applicant to develop a CMP for the portion of the project within the SCCAB.

Response 9.4

The commenter states that the DEIR references emission reduction strategies including Tier 3 off-road equipment and transportation demand management (TDM) strategies, such as shuttle services for employees, to reduce construction phase emissions. As described in Table 4.3-5 of the DEIR, the emissions modeling for mitigated emissions assumes Tier 3 engines for construction equipment. Refer to response 9.2, above. As noted therein, Mitigation Measure AQ-2(c) has been incorporated into the DEIR, and would require the use of Tier 3 construction equipment, consistent with SLOAPCD recommendations for BACT for Construction Equipment. The addition of this measure ensures that required mitigation is consistent with assumptions made in the DEIR emissions estimates. As described in Section 4.3.3(a) of the DEIR, the project includes a shuttle program to minimize traffic trips associated with project construction; however, the *California Flats Solar Project Traffic Impact Analysis Report* (August 2013) evaluated the amount of trips based on a conservative estimate of daily on-site employees, and no reduction in vehicle trips associated with the proposed shuttle is assumed in the emissions analysis, resulting in a conservative estimate of construction vehicle trip emissions.

Response 9.5

The commenter notes that Impact AQ-9 of the DEIR describes fugitive dust impacts from the portion of the project within the SCCAB as significant an unavoidable, but states that with implementation of SLOAPCD-approved construction dust mitigation measures and ongoing compliance with SLOA OCD's Rule 401 (opacity) and Rule 402 (nuisance), this impact would be reduced to a less than significant level. The commenter recommends the following additions to the DEIR mitigation for fugitive dust (Mitigation Measure AQ-2[a]):

- *Fully implement the SLOAPCD-approved construction dust mitigation measures as defined in Section 2.4 of the 2012 SLOAPCD CEQA Air Quality Handbook;*
- *If the required dust mitigation measures are ineffective at eliminating violations of SLOAPCD Rules 401 and 402, the project shall "promptly work with the SLOAPCD Compliance Division to define additional and/or alternative measures to correct mitigation deficiencies;" and*
- *SLOAPCD Compliance Division shall have final enforcement authority to ensure that the project promptly addresses opacity and nuisance violations.*

Mitigation Measure AQ-2(a) contains an extensive list of required dust control measures for the proposed project which are based on and consistent with the measures defined in Section 2.4 of the 2012 SLOAPCD CEQA Air Quality Handbook. However, the recommendation that the applicant "work with the SLOAPCD Compliance Division to define additional and/or alternative measures" in the event that fugitive dust emissions violate Rule 401 and/or Rule 402 is not considered necessary at this time because of the dust reduction measures already required in Mitigation Measure AQ-2(a). Mitigation Measure AQ-2(a) would reduce dust associated with project construction to the maximum extent feasible. SLOAPCD Compliance Division would retain enforcement authority with respect to Rule 401 and Rule 402 for the portion of the project within the SCCAB. Because no additional feasible mitigation is available that would reduce Impact AQ-9 to a less than significant level, this impact remains significant and unavoidable.

Response 9.6

The commenter states that the portion of the project within San Luis Obispo County is located in a candidate area for Naturally Occurring Asbestos (NOA), and that project construction within San Luis Obispo County is subject to the California Air Resources Board Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (93105). The potential for encountering NOA during project construction activity is discussed in Impact AQ-4 in Section 4.3, *Air Quality*, of the DEIR. As described therein, the project site contains limited areas that could contain ultramafic rock in the southern portion of the site. As noted in the DEIR, CARB has developed a list of suggested mitigation measures to reduce potential impacts during the design, construction, and operation of projects in areas containing NOA. According to CARB, the use of BMPs during construction would minimize potential impacts due to NOA. Mitigation Measure AQ-2(a) requires dust control measures throughout the duration of construction, including a grading plan that minimizes the amount of disturbed area, water trucks or sprinkler systems to prevent airborne dust from leaving the site, establishment of clear boundaries for dust control between work areas, a 15 mph on-site speed limit, and on-site dust control monitoring during construction activity, which would minimize temporary impacts in accordance with the recommendations of CARB and technical guidance provided by the OPR. Due to the limited distribution of on-site soils containing NOA, as well as the implementation of standard construction BMPs, the DEIR determined that potential impacts associated with NOA would be less than significant.



Letter 10

Robinson, Delinda x5198

From: Mangione, Lisa SPN [Lisa.Mangione@usace.army.mil]
Sent: Monday, September 22, 2014 1:48 PM
To: Robinson, Delinda x5198
Subject: RE: California Flats Solar Draft Environmental Impact Report (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hi, Delinda,

Per your request, this email is to inform you that the Corps will not be providing comments on the California Flats Solar DEIR. 10.1

Lisa Mangione
Regulatory Project Manager
Regulatory Division, South Branch
U.S. Army Corps of Engineers
1455 Market Street, 16th Floor
San Francisco, California 94103-1398
415-503-6763
Lisa.Mangione@usace.army.mil

-----Original Message-----

From: Robinson, Delinda x5198 [<mailto:robinsond@co.monterey.ca.us>]
Sent: Wednesday, September 17, 2014 3:45 PM
To: Mangione, Lisa SPN
Subject: [EXTERNAL] California Flats Solar Draft Environmental Impact Report

Lisa -

On August 6, 2014 a copy of the Notice of Availability of the Draft Environmental Impact Report for the California Flats Solar Project was sent electronically to the US Army Corps of Engineers at these e-mail addresses: 'galacatos@usace.army.mil'; and 'paula.c.gill@usace.army.mil'. A paper copy of the NOA and a CD containing the entire DEIR were also mailed to the USACE on that date. Unfortunately, the mailing address was outdated and the hard copies were returned. The DEIR is available on our website at [http://www.co.monterey.ca.us/planning/major/California%20Flats%20Solar/California Flats Solar .htm](http://www.co.monterey.ca.us/planning/major/California%20Flats%20Solar/California%20Flats%20Solar.htm) and a copy of the NOA is attached for your reference. If the USACE did not receive the NOA electronically on August 6, 2014, please let me know immediately if you would like to have some additional time to review the DEIR and provide comments. It is my understanding that you will be out of the office until Monday, September 22 which is the deadline to provide comments. I will attempt to call you on Monday if I don't hear from you.

Thank you very much.

Delinda Robinson
Senior Planner
Monterey County RMA-Planning Department
168 West Alisal Street, Second Floor
Salinas, CA 93901
(831) 755-5198

Website: www.co.monterey.ca.us/planning <<http://www.co.monterey.ca.us/planning>>

To access our permit database, please go to: <https://aca.accela.com/monterey/Default.aspx>
<<https://aca.accela.com/monterey/Default.aspx>>

Classification: UNCLASSIFIED

Caveats: NONE

Letter 10

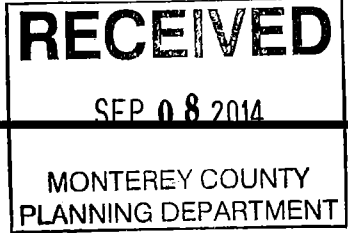
COMMENTER: Lisa Mangione, Regulatory Project Manager, Regulatory Division, U.S.
Army Corps of Engineers

DATE: September 22, 2014

Response 10.1

The commenter states that USACE will not be providing comments on the DEIR. This comment is noted.





Gonzales, Eva x5186

From: Kristin Cushman [kristin@theoffsetproject.org]
Sent: Saturday, September 06, 2014 9:51 AM
To: ceqacomments
Subject: Public Comment for California Flats project
Attachments: TOP Public Comment_CA Flats.PDF

Ms. Robinson,

On behalf of The Offset Project, I would like to make a public comment in support of the California Flats solar project. Please see formal letter attached with a hard copy being mailed to you this afternoon.

11.1

Thank you in advance for your consideration.

Sincerely,
Kristin

--
Kristin Cushman
Executive Director
m. (831) 277-0167
o. (831) 917-7565
www.theoffsetproject.org

RECEIVED
SEP 08 2014
MONTEREY COUNTY
PLANNING DEPARTMENT



Delinda Robinson
Monterey County Resource Management Agency
Planning Department
168 W. Alisal St., 2nd Floor
Salinas, CA 93901

Dear Ms. Robinson,

On behalf of The Offset Project, I would like to extend a letter of support for California Flats solar project. This project incorporates the principles of climate protection, green job creation and economic development through locally produced, clean and renewable energy that are pillars of our mission, our vision for a sustainable Monterey Bay community, and our program offerings. We encourage the Monterey County Planning Commission and the Monterey County Board of Supervisors to approve, and continue to support this project.

California Flats supports state and local renewable energy goals outlined in the Renewable Energy Portfolio standards and Governor's 12,000 Megawatt Challenge as well as the greenhouse gas reduction goals of AB32. The project also utilizes highly efficient, state-of-the-art equipment and design and has chosen an optimal project site to maximize production and yield the greatest GHG benefits.

While no large project of any type can be developed in California without acknowledging the potential impacts on the surrounding environment and communities, a review of the project's EIR shows that these benefits are accrued with very nominal side effects. California Flats has done a commendable job mitigating for traffic, dust, habitat and species and as such is a model for a low impact power plant. Specifically, California Flat's location on the existing power grid means that electricity will get to consumers without the added costs of new power line construction. The design and location of the photovoltaic panels is such that the watershed, local flora and fauna will be protected.

In addition to the greenhouse gas reductions, California Flats will provide economical development benefits to the region with close to 900 full time jobs during. These are high wage "green" jobs that are the model for enhancing the 21st century California economy.

California Flats provides Monterey County with the opportunity to be a leader in both green energy and sustainable economic development and I encourage your approval of the project.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kristin Cushman'.

Kristin Cushman
Executive Director, The Offset Project
(831) 277-0167
Kristin@theoffsetproject.org

A handwritten signature in black ink, appearing to read 'Nick Tomb'.

Nick Tomb
Chairman of the Board, The Offset Project
(831) 238-6848
nicktomb@yahoo.com

11.2

Letter 11

COMMENTER: Kristin Cushman, Executive Director, The Offset Project

DATE: September 6, 2014

Response 11.1

The commenter expresses support of the proposed project. The comment is noted.

Response 11.2

The commenter expresses support of the proposed project, citing the benefits of renewable energy, greenhouse gas reduction, and economic development. The commenter additionally notes that the project achieves these benefits with nominal side effects. The comment is noted.



September 22, 2014

Via Overnight and Electronic Mail

Delinda Robinson
Monterey County Resource Management Agency
Planning Department
168 W. Alisal St., 2nd Floor
Salinas, CA 93901
Phone: (831) 755-5198
E-mail: robinsond@co.monterey.ca.us
ceqacomments@co.monterey.ca.us

Re: Comments on the Draft Environmental Impact Report for the California Flats Solar Project (PLN120294; SCH#2013041031)

Dear Ms. Robinson:

We are writing on behalf of the Monterey County Residents for Responsible Development to provide comments on the Draft Environmental Impact Report (“DEIR”) prepared by the Monterey County Resource Management Agency Planning Department (“County”), pursuant to the California Environmental Quality Act (“CEQA”),¹ for the California Flats Solar Project (“Project”) proposed by California Flats Solar, LLC (the “Applicant”). The Applicant seeks a Combined Development Permit (“CDP”) to develop a 280-megawatt (“MW”) solar facility on approximately 3,000 acres of land in unincorporated Monterey County.

12.1

I. INTRODUCTION

The Project is comprised of the solar generating facility area, a utility corridor, and improvements to an existing access road. The solar generating facility area would be located on approximately 3,000 acres, and would include an approximately 2,120 acre solar development area, an approximately 135-acre (2.8 miles) 230 kV

12.2

¹ Pub. Resources Code, §§ 21000 et seq.

overhead transmission line corridor, an approximately 5-acre high-capacity collection system line corridor, two on-site substations each approximately six acres in size, a switching station to be owned and operated by Pacific Gas & Electric Company (“PG&E”) approximately six acres in size, an operations and maintenance (“O&M”) facility, and temporary construction staging areas. In addition, implementation of the proposed solar project would require construction and operation of an approximately 155 acre utility corridor and improvements to an existing private access road within an approximately 60 acre area. The site is bordered by grazing land, some farmland, and several rural residences located in close proximity to the site.

12.2

The DEIR for this Project fails to comply with CEQA’s basic requirement to act as an “informational document”: it is devoid of meaningful details upon which to make an adequate assessment of the Project’s significant impacts. The DEIR fails to provide a stable project description; fails to provide adequate environmental baseline information; lacks substantial evidence to support its conclusions regarding the Project’s significant impacts; fails to incorporate all feasible mitigation measures necessary to reduce such impacts to a level of insignificance; fails to adequately identify and analyze the Project’s cumulative impacts; and is not consistent with the Monterey County General Plan. As a result of these shortcomings, the DEIR lacks substantial evidence to properly identify and mitigate the Project’s significant environmental impacts. These defects render the DEIR inadequate as an informational document.

12.3

These comments will demonstrate that the DEIR for the Project is fatally flawed. The DEIR is a classic example of bare conclusions without appropriate prior analysis or due consideration. In light of the DEIR’s fundamentally flawed nature, the comments contained in this letter should be viewed as illustrative of the problems with the document, rather than as a comprehensive catalogue of the document’s deficiencies. A number of the conclusions contained in the DEIR are not supported by facts, reasonable assumptions predicated on facts, or expert opinion supported by facts. Based on the findings of this comment letter, a revised DEIR must be written and recirculated before the County may legally approve the Project.

We have reviewed the DEIR and its technical appendices with assistance from technical consultants, whose comments and qualifications are attached as follows: Scott Cashen, with the assistance of Michael Morrison and Vernon Bleich (**Attachment A**), Matt Hagemann and Anders Sutherland (**Attachment B**), and

12.4

Tom Myers (**Attachment C**). The County must respond to these consultants' comments separately and individually.

12.4

II. STATEMENT OF INTEREST

Monterey County Residents for Responsible Development is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential public and worker health and safety hazards and environmental and public service impacts of the Project. The association includes Monterey County residents, such as Manuel Ramos, Robert Greene, and California Unions for Reliable Energy ("CURE") and its members and their families and other individuals that live and/or work in Monterey County (collectively, "Monterey County Residents"). The association was formed to advocate for responsible and sustainable solar development in Monterey County and nearby surrounding areas in order to protect public health and safety and the environment where the association members and their families live, work and recreate.

The individual members of Monterey County Residents and the members of the affiliated labor organizations live, work, recreate and raise their families in the Monterey County. They would be directly affected by the Project's environmental and health and safety impacts. Individual members may also work constructing the Project itself. They will be first in line to be exposed to any health and safety hazards that may be present on the Project site. They each have a personal interest in protecting the Project area from unnecessary, adverse environmental and public health impacts.

12.5

The organizational members of Monterey County Residents also has an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for the union organization's members that they represent. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for businesses to locate and people to live there. This in turn jeopardizes future development by causing construction moratoriums and otherwise reducing future employment opportunities for construction workers. The labor organization members of Monterey County Residents therefore have a direct interest in enforcing environmental laws to minimize the adverse impacts of projects that would otherwise degrade the environment.

III. THE PROJECT DESCRIPTION IS INADEQUATE

The DEIR does not meet CEQA’s requirements because it fails to include a complete and accurate project description, rendering the entire impact analysis unreliable. An accurate and complete project description is necessary to perform an evaluation of the potential environmental effects of a proposed project.² Without a complete project description, the environmental analysis will be impermissibly narrow, thus minimizing the project’s impacts and undercutting public review.³ The courts have repeatedly held that “an accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient [CEQA document].”⁴ “Only through an accurate view of the project may affected outsiders and public decision makers balance the proposal’s benefit against its environmental costs.”⁵

12.6

CEQA Guidelines section 15378 defines “project” to mean “the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.”⁶ “The term ‘project’ refers to the activity which is being approved and which may be subject to several discretionary approvals by governmental agencies. The term project does not mean each separate governmental approval.”⁷ Courts have explained that a complete project description of a project has to address not only the immediate environmental consequences of going forward with the project, but also all “*reasonably foreseeable* consequence[s] of the initial project.”⁸

A. The DEIR Fails to Provide Sufficient Detail Regarding the Project’s Planning and Design Features

The DEIR fails to sufficiently describe the Project in several ways. For instance, it is unclear in the DEIR whether PG&E, rather than the Applicant, is actually constructing the switching station or will take ownership and operate the

12.7

² See, e.g., *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376.

³ See *id.*

⁴ *County of Inyo v. County of Los Angeles* (1977) 71 Cal.App.3d 185, 193.

⁵ *Id.*, at 192-193.

⁶ 14 Cal.Code Regs, tit. 14, §15378 (“CEQA Guidelines”).

⁷ CEQA Guidelines, § 15378(c).

⁸ *Laurel Heights*, 47 Cal.3d 376, emphasis added; see also *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-50.

station after construction.⁹ It is also unclear whether the Project will require the construction of a new well, what kind of construction would be required, and whether there are any potentially significant impacts resulting from the construction. The DEIR references a potential new well in several areas, but is vague in its conclusion as to the Project's need.¹⁰ The extent of the discussion is a brief statement:

“[t]he ultimate locations of the potential new well would depend on final design and operational efficiencies. If the new well is constructed, the applicant would first be required to obtain a well drilling permit from the Monterey County Environmental Health Department, and would be required to comply with applicable County requirements related to the siting and design of new wells.”

12.7

This is an insufficient analysis of an important component of the Project description. Mere assurance for compliance with local law *if* there is a need for an additional Project feature, without further analysis regarding that feature and its impacts, “does not adequately apprise all interested parties of the true scope of the project for intelligent weighing of the environmental consequences of the project.”¹¹ Furthermore, should the Applicant decide to move forward with drilling a new well, that in itself could have potentially significant impacts that must be addressed in this environmental review process. Without more information, “informed decisionmaking cannot occur under CEQA and the final EIR is inadequate as a matter of law.”¹²

Another failure in the Project description can be found in the discussion of park-and-ride facilities for employee shuttles. In one section, the DEIR refers to specific locations for park-and-ride lots, namely Cuesta College North County Campus in Paso Robles, Wild Horse Café in King City and Blackwell's Corner near the intersection of SR 46 and SR 33.¹³ In addition, the DEIR vaguely states that the sites may require temporary fencing and minor surface improvements.¹⁴ However,

12.8

⁹ DEIR, p. 2-92 (“PG&E’s *construction* of switching station”) (emphasis added); DEIR, p. 2-15 (“the *project proponent would also construct* a new 230kV interconnection switching station that would provide an interconnection to the existing Morro Bay-Gates 230kV transmission line and would be owned and operated by PG&E”) (emphasis added).

¹⁰ DEIR, p. 2-79.

¹¹ *Riverwatch v. Olivenhain Municipal Water Dist.* (2009) 170 Cal.App.4th 1186, 1201.

¹² *Id.*

¹³ DEIR, p. 2-84.

¹⁴ DEIR, p. 2-84.

elsewhere in the DEIR, it is asserted that “[t]he exact location and size of the proposed park and ride facilities are not known at this time” and that the lots “shall be currently improved and have existing stormwater drainage infrastructure in place.”¹⁵ Thus, it is unclear whether the County has actually identified specific locations for the park-and-ride facilities and whether any construction or improvements would be needed.

12.8

This is not an isolated example of the DEIR inconsistencies; rather it is demonstrative of a systemic problem plaguing the environmental analysis. The DEIR’s lack of a consistent construction period thwarts an adequate biological resource and air quality analysis, as well as analysis of potential impacts in other areas.¹⁶ In addition, the DEIR is silent as to how many PV panels will be installed for the Project and provides only tentative design features for the PV modules. The DEIR merely states that the Project “would utilize high-efficiency commercially available solar PV modules” and lists potential materials to be included in the design.¹⁷ Finally, the DEIR fails to provide important information on the specific type of stream crossings the Project would require on the site, such as the number and location of crossings. The DEIR merely states that stream crossings would be “determined at the time of project design.”¹⁸

12.9

These are examples of the County’s failure to identify relevant information in the DEIR in violation of CEQA’s fundamental purpose to “alert the public and its responsible officials to environmental changes before they have reached ecological points of no return.”¹⁹ For the public and policy-makers to be informed of the environmental consequences, they must be presented with reliable and current information.

B. The DEIR Fails to Provide a Complete Description of Decommissioning Phase

A complete project description must also include details as to the “later phases of the project, and any secondary, support, or off-site features necessary for its

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¹⁵ DEIR, p. 4.13-3.

¹⁶ DEIR, p. 2-81 (“Construction of the proposed project would take approximately 12 to 24 months...”); DEIR p. 4.4-183 (“...construction is anticipated to occur for up to 18 months...”); DEIR, Appendix M, p. 21 (“...total construction phase duration of approximately 12 to 18 months...”)

¹⁷ DEIR, p. 2-13 – 2-14.

¹⁸ DEIR, p. 2-73.

¹⁹ *Laurel Heights*, 47 Cal. 3d at 392.

implementation.”²⁰ The requirements of CEQA cannot be avoided by chopping a large project into many small parts or by excluding reasonably foreseeable future activities that may become part of the project.²¹ The DEIR must supply enough information so that the decision makers and the public can fully understand the scope of the Project.²² The County, as the lead agency, must fully analyze the whole of a project in a single environmental review document and may not piecemeal or split a project into pieces for purposes of analysis.

The DEIR here fails to describe the full scope of the Project being approved, and thus fails to disclose the full range and severity of the Project’s environmental impacts. In this case, the Project has three distinct phase’s: construction, operation/maintenance and decommissioning. The decommissioning phase consists of dismantling and repurposing, salvaging/recycling, or disposing of the solar energy improvements, and revegetation on the approximately 3,000 acre Project site.²³ These decommissioning activities are a part of the “whole of the project,” and as a matter of common sense they will result in environmental impacts, including impacts to air quality, biological resources, water and solid waste capacity. The DEIR, however, underestimates these potentially significant impacts by failing to adequately investigate and mitigate the impacts in light of their “speculative” nature and alleged inherent similarity to the construction phase.²⁴

12.10

The public and decision makers are provided with a one-sentence assessment that the impacts associated with the decommissioning will be “similar” to those associated with construction as “based on current decommissioning practices.”²⁵ The DEIR provides no evidence to support this statement. This is not factual evidence but is speculation and opinion. Also, it is inappropriate for the DEIR to provide only generalized, programmatic-level evaluation of decommissioning impacts in a project-level CEQA review. Without suitable details and impact analysis, proper mitigation measures are precluded and the decommissioning could result in significant unmitigated impacts (impacts will be discussed in detail, in the paragraphs below). The inaccurate and cursory depiction of the decommissioning activities results in an illegal minimization of the entire Project’s environmental impacts in contravention of

²⁰ *Bozung v. Local Agency Formation Com.* (1975), 13 Cal.3d 263, 283-84.

²¹ Pub. Resources Code § 21159.27 (prohibiting piecemealing); *see also, Rio Vista Farm Bureau Center v. County of Solano*, 5 Cal.App.4th 351, 370 (1992).

²² *Dry Creek Citizens Coalition v. County of Tulare*, 70 Cal.App.4th 20, 26 (1999).

²³ DEIR, p. 2-88.

²⁴ DEIR, p. 2-87 – 2-88.

²⁵ DEIR, p. 2-88.

CEQA. The information, or rather lack thereof, is inexorably linked to the adequacy of the DEIR's analysis of the Project's environmental effects. The mistake in the Project description is compounded throughout the DEIR because all of the DEIR's analyses (e.g., of air, biological resources, agriculture) rely on an inaccurate level of use.²⁶ The failure to provide an adequate description of the decommissioning activities thwarts the DEIR's environmental analysis because, as this comment letter will show, the DEIR does not properly evaluate significant impacts in several resource areas.

12.10

The shifting and ambiguous duration and timing of the decommissioning further frustrates an "accurate, stable, and finite description" which, as highlighted, is as an indispensable prerequisite to an informative and legally sufficient DEIR.²⁷ The public and decision makers are left in the dark as to the specific impacts of decommissioning and are thus unable to fully assess the whole of the Project.

IV. THE DEIR FAILS TO ADEQUATELY DESCRIBE THE ENVIRONMENTAL BASELINE

The DEIR must demonstrate a good faith effort at full disclosure.²⁸ "The EIR must demonstrate that the significant environmental impacts of the proposed project were investigated and discussed" and permit project effects "to be considered in the full environmental context."²⁹ An EIR must also include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project.³⁰ A prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process.³¹

12.11

Here, the DEIR's failure to adequately describe the existing setting is inconsistent with the fundamental purpose of the environmental review process, which is to determine whether there is a potentially substantial, adverse change compared to the existing setting. CEQA requires that a lead agency include a

²⁶ See, *Laurel Heights*, 47 C.3d 376 [EIR failed to describe or analyze project accurately].

²⁷ *San Joaquin Raptor/Wildlife Rescue Ctr. v. County of Stanislaus* (1994), 27 Cal. 4th 713, 730 32 Cal.Rptr.2nd 704.

²⁸ *Association of Irrigated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1390.

²⁹ CEQA Guidelines § 15125 subd. (c).

³⁰ *Association of Irrigated Residents*, 107 Cal.App.4th at 1390.

³¹ *Al Larson Boat Shop, Inc. v. Board of Harbor Commissioners* (1993) 18 Cal.App.4th 729, 748.

description of the physical environmental conditions in the vicinity of the Project, as they exist at the time environmental review commences.³² The Courts have consistently held that the impacts of a project must be measured against the “real conditions on the ground.”³³ The description of the environmental setting constitutes the baseline physical conditions by which a lead agency must measure the significance of a project’s impacts.³⁴

12.11

The County is under an obligation to describe the existing environmental setting in sufficient detail to enable a proper analysis of project impacts.³⁵ CEQA Guidelines section 15125 provides, in relevant part, that “[k]nowledge of the regional setting is critical to the assessment of environmental impacts.”³⁶ This level of detail is necessary to “permit the significant effects of the project to be considered in the full environmental context.”³⁷ The description of the environmental setting in the DEIR is inadequate because it omits highly relevant information regarding biological resources and potential hazards on the Project site.

A. The DEIR Fails to Adequately Describe the Existing Baseline for Biological Resources.

Monterey is the biological center of California; many plant species that find either their northern or southern limits can be found in Monterey County. In addition, a high number of plant species are native only to Monterey County.³⁸ A review of this Project by Biologist Scott Cashen reveals that the description of the existing environmental setting found in the DEIR, and the *Biotic Report* upon which it relies, is incomplete and plagued with errors.³⁹ In its current form, it fails to provide an adequate description of the presence of special-status biological resources on the Project site against which to assess the Project’s significant impacts. For example, Mr. Cashen’s review shows that protocol-level surveys for several plant and

12.12

³² CEQA Guidelines § 15125, subd. (a); see also *Communities For A Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 321.

³³ *Save Our Peninsula Com. v. Monterey Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 121-22; *City of Carmel-by-the Sea v. Bd. of Supervisors* (1986) 183 Cal.App.3d 229, 246.

³⁴ CEQA Guidelines, § 15125, subd. (a).

³⁵ *Galante Vineyards v. Monterey Peninsula Water Management District* (1997) 60 Cal.App.4th 1109, 1121-22.

³⁶ CEQA Guidelines § 15125, subd. (d).

³⁷ *Id.*

³⁸ Monterey County General Plan, Conservation and Open Space Element (2002).

³⁹ See Letter from Scott Cashen, et al., to Laura Horton re: Draft Environmental Impact Report for the California Flats Solar Project, September 22, 2014 (hereinafter, “Cashen Comments”), **Attachment A**.

animal species were not properly implemented, or implemented at all, across the Project and survey area.⁴⁰ In addition to problematic survey methods, there was inadequate trapping to identify small mammal species.⁴¹

12.12

Consequently, the documentation of special status species occurrence on the Project site and biological assessment area is inadequate. Mr. Cashen states that “[t]he DEIR cannot be considered a robust and comprehensive analysis of biological resources until the surveys have been adequately conducted, documented, and vetted by the public and resource agencies.”⁴² Faulty baseline analysis for specific species is as follows.

1. Rare Plants

Mr. Cashen observed many errors in the rare plant surveys referenced in the DEIR.⁴³ For example, he states that because many surveys were conducted in such a poor rainfall year, results should be considered inconclusive and the Biological Study Area (“BSA”) resurveyed.⁴⁴ In addition, Mr. Cashen found that in order for the DEIR to properly assess all potentially significant impacts, and formulate appropriate mitigation, the Project area needs to be resurveyed when the aforementioned plants are evident and identifiable.⁴⁵

12.13

According to Mr. Cashen, the DEIR provides inaccurate information regarding the presence of Mason's neststraw (*Stylocline masonii*), stating that the plant has no potential of occurring within the BSA.⁴⁶ The statement conflicts with the *Biotic Report Addendum*, which indicates the species could occur within the Project’s utility corridor.⁴⁷ Furthermore, the DEIR and appendices do not indicate whether protocol-level surveys were conducted for this taxon during a time when it would have been evident and identifiable.⁴⁸ The DEIR is also misleading as to several of the target annual plant species being “absent” from the survey areas.⁴⁹ Mr. Cashen states that

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⁴⁰ *Id.*

⁴¹ *Id.*, at 16.

⁴² *Id.*, at 2.

⁴³ *Id.*, at 3-7.

⁴⁴ *Id.*, at 3.

⁴⁵ *Id.*, at 5.

⁴⁶ *Id.*; DEIR, p. 4.4-41.

⁴⁷ DEIR, Appendix E13, p. 7.

⁴⁸ Cashen Comment, p. 5.

⁴⁹ *Id.*; DEIR, Table 4.4-4.

“it is virtually impossible to prove a species’ absence, especially within a survey area that encompassed either 4,361 acres (as reported in Table 4) or over 4,800 acres (as reported on p.31). This is especially true for annual plant species, which may have seed banks present in the soil, but the seeds do not germinate in a given year (e.g., due to drought).”⁵⁰ | 12.15

The DEIR’s survey report also lacks details regarding the number of personnel hours spent checking reference sites and conducting the regional contextual surveys, and as a result, Mr. Cashen believes the DEIR and appendices falsely inflate the amount of time dedicated to Project-specific surveys.⁵¹ All of these deficiencies, plus many more highlighted in Mr. Cashen’s letter, result in a DEIR that fails in establishing an accurate environmental baseline in violation of CEQA. | 12.16
| 12.17

2. San Joaquin Kit Fox

The DEIR indicates known records of the San Joaquin kit fox, showing frequent occurrence to the south and east of the Project area.⁵² However, according to Mr. Cashen, there is no indication whether surveys were conducted to the north and west of the Project area.⁵³ The DEIR is also inconsistent in its assessment of whether the Project area could be a wildlife corridor for the kit fox, thus according to Mr. Cashen, the DEIR gives completely contradictory information regarding the presence of, and Project impacts to, this special-status species.⁵⁴ The high potential for significant impacts on the kit fox makes establishing an accurate environmental baseline extremely important. | 12.18

3. San Joaquin Pocket Mouse

The DEIR states that the San Joaquin pocket mouse could occur on site, but implies none were located during kangaroo rat focused trapping.⁵⁵ However, Mr. Cashen found that “adequate trapping was not conducted to determine the presence of this special status species.”⁵⁶ Furthermore, the information was based on the state’s natural diversity database (“CNDDDB”) alone, which only includes records | 12.19

⁵⁰ Cashen Comments, p. 5.

⁵¹ *Id.*, at 6.

⁵² DEIR, p. 4.4-50.

⁵³ Cashen Comments, p. 14.

⁵⁴ *Id.*, at 15.

⁵⁵ DEIR, p. 4.4-77.

⁵⁶ Cashen Comments, p. 16.

submitted to California Department of Fish and Wildlife (“CDFW”) and is “not a substitute for site-specific surveys.”⁵⁷ The DEIR further states that the Project will “...reduce a relatively small amount of habitat that is regionally abundant for this species; consequently, this permanent habitat conversion would not substantially reduce the number of this species or restrict its range.”⁵⁸ This “fails to acknowledge that if the pocket mice in the Project area represent part of a metapopulation structure, loss of this subpopulation could negatively impact overall species viability and diversity.”⁵⁹

12.19

4. California Tiger Salamander

According to Mr. Cashen, the Project area was not adequately surveyed for the California Tiger Salamander (“CTS”) because not all suitable breeding sites were surveyed and it was only surveyed during drought conditions.⁶⁰ As a result, “definitive statements made in the DEIR about baseline conditions for occurrence or habitat suitability at the Project area are not supported.”⁶¹

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5. California Red-Legged Frog

Mr. Cashen found that, based on the description of the survey efforts to locate California red-legged frogs (“CRLF”) in the Project area, the survey team did not sample the Project and biological assessment area according to USFWS protocol, which recommends:

“a total of up to eight (8) surveys to determine the presence of [CRLF] at or near a project site. Two (2) day surveys and four (4) night surveys are recommended during the breeding season; one (1) day and one (1) night survey is recommended during the non-breeding season. Each survey must take place at least seven (7) days apart. At least one survey must be conducted prior to August 15th. The survey period must be over a minimum period of 6 weeks (i.e., the time between the first and last survey must be at least 6

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⁵⁷ *Id.*

⁵⁸ DEIR, p. 4.4-95.

⁵⁹ Cashen Comments, p. 16.

⁶⁰ *Id.*, at 11.

⁶¹ 11.

weeks). Throughout the species' range, the non-breeding season is defined as between July 1 and September 30.”⁶²

It appears that only 3 surveys were conducted and no night surveys were conducted at all. Additionally, the CRLF survey was completed during a suboptimal drought conditions.⁶³ As a result, in Mr. Cashen's expert opinion, the full extent of CRLF occurrences across the Project and survey area was “likely underrepresented and could result in unmitigated impacts to the species.”⁶⁴

12.21

6. Western Pond Turtle

According to the *Biotic Report*,⁶⁵ protocol surveys for the western pond turtle (“WPT”) were not conducted despite the existence of established protocols.⁶⁶ Instead, the detection of this species, along with other amphibian and reptile species, was based on casual observations while conducting CRLF, CTS, or other reconnaissance-level surveys.⁶⁷ As a result, Mr. Cashen concludes that the DEIR fails to establish the abundance and distribution of western pond turtles in the Project area, which could cause “severe consequences” for the conservation of the species.⁶⁸

12.22

7. Swainson's Hawk

The DEIR states:

Currently, Swainson's hawk, white-tailed kite, and northern harrier are not known to nest on the Solar Generating Facility Area or in the Access Road. Although the project site contains suitable foraging habitat for these species, none have been detected

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⁶² *Id.* at 13; USFWS, *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog* 6 (2005), http://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/Documents/crf_survey_guidance_aug2005.pdf.

⁶³ Cashen Comments, p. 13; Annual Climatological Summary (2013), National Climatic Data Center National Oceanic & Atmospheric Administration, <http://www.ncdc.noaa.gov/cdo-web/>.

⁶⁴ Cashen Comments, p. 13.

⁶⁵ DEIR, Appendix E1.

⁶⁶ Cashen Comments, p. 3; DEIR, Appendix E.1, Section 2.5. *See also* U. S. Geological Survey. 2006. USGS western pond turtle (*Emys marmorata*) visual survey protocol for the southcoast ecoregion. U. S. Geological Survey protocol. San Diego, CA.

⁶⁷ Cashen Comments, p. 13.

⁶⁸ *Id.*, at 14.

nesting or foraging on the project site. If any of the species occur on the site, it would be infrequently.⁶⁹

Mr. Cashen found these statements to be misleading because, as stated above, no protocol-level surveys were conducted for Swainson’s hawk nest sites, “which can be very difficult to locate.”⁷⁰ The CDFW even sent a letter to the County indicating the need for protocol-level surveys in the Project area.⁷¹ In fact, the *Biotic Report* recognized the existence of CDFW promulgated standards for locating nest sites, and it acknowledged surveys adhering to those standards have not been conducted for the Project.⁷² This is an utter failure to establish accurate baseline information regarding the Swainson’s hawk.

12.23

8. Mountain Plover

The DEIR states that “there are no CNDDDB records for mountain plover within 20 miles of the BSA, but small flocks have been reported in the Cholame Valley as close as four miles south of the project site.”⁷³ However, as Mr. Cashen points out, “the mountain plover is indicted to occur on the 1-mile radius line on the southern side of the Project area, as documented in Fig. 4.4-6 (CNDDDB records) of the DEIR.”⁷⁴

12.24

9. Northern Harrier

The DEIR states that “there are no CNDDDB records of northern harriers within 20 miles of the BSA, but they have been observed foraging within the project site. Due to ongoing grazing activities, the Project site and Access Road provide suitable foraging habitat, but suitable nesting habitat is absent.”⁷⁵ However, Mr. Cashen states in his review, that “the Applicant’s consultant did not conduct surveys for northern harrier nests on and around the Project area, nor where nest searches

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⁶⁹ DEIR, 4.4-103.

⁷⁰ Cashen Comments, p. 69; CDFG. 2000 May 31. Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley. Swainson’s Hawk Technical Advisory Committee.

⁷¹ See DEIR, Appendix A.

⁷² DEIR, Appendix E1, pp. 90, 91.

⁷³ DEIR, p. 4.4-74.

⁷⁴ Cashen Comments, p. 10.

⁷⁵ DEIR, p. 4.4-74.

conducted for any other species except the golden eagle.”⁷⁶ In addition, “[a]ccording to the Biotic Report, harriers are known to nest in Cholame Valley.”⁷⁷

12.25

10. Pronghorn

Mr. Cashen explains that “the past presence and abundance of pronghorn (*Antilocapra americana*) in Monterey County, California have long been established.”⁷⁸ The DEIR states: “pronghorn and Tule elk have not been observed with the project site.”⁷⁹ However, as Mr. Cashen points out, that statement appears to conflict with information on the Applicant’s website, which states: “A herd of approximately 100 antelope have flourished on the [Jack] ranch, since their original introduction by Fish and Game on neighboring land.”⁸⁰ Moreover, he states that “pronghorn have been observed within the access road corridor and reportedly in the southern end of the Project site.”⁸¹ Therefore, the DEIR is inaccurate and does not properly establish baseline conditions regarding the presence of pronghorn on the Project site.

12.26

B. The DEIR Fails to Adequately Describe the Existing Baseline to Determine the Potential for Hazards

The DEIR failed to accurately establish the existing environmental setting for hazards because it failed to rely on a Phase I Environmental Site Assessment (“ESA”) at the Project site. According to Matt Hagemann and Anders Sutherland of SWAPE Consulting, a Phase I ESA is the customary due diligence investigation used by developers to establish the baseline setting for potential hazards at a project site.⁸² However, instead of abiding by this industry standard, the DEIR makes assumptions that are not substantiated by the facts.⁸³ This failure resulted in the oversight of several potentially significant impacts.

12.27

⁷⁶ Cashen Comments, p. 10-11.

⁷⁷ *Id.*; DEIR, Appendix E1, p. 97.

⁷⁸ Cashen Comments, p. 16.

⁷⁹ DEIR, p. 4.4-81.

⁸⁰ Hearst Ranch Website, <http://www.hearstranch.com/about>.

⁸¹ Cashen Comments, p. 17.

⁸² Letter from Matt Hagemann and Anders Sutherland to Laura Horton re: Draft Environmental Impact Report for the California Flats Solar Project, September 19, 2014 p. 1 (hereinafter, “Hagemann Comments”), **Attachment B**.

⁸³ *See* DEIR, Sec. 4.8.

First, as Mr. Hagemann and Mr. Sutherland found in their review of the DEIR, there are two oil and gas wells on the Project site.⁸⁴ The DEIR does not contain enough information to determine the methods by which these wells were abandoned. Mr. Hagemann and Mr. Sutherland explained that “poorly abandoned wells may act as conduits for contamination to move from the surface to deeper levels in the subsurface, including movement of surface contaminants to groundwater.”⁸⁵ Construction near the wells could damage and expose the wells, creating hazards to the environment and people. Further research must be done to determine the exact location of these wells in relation to proposed construction and whether the wells were abandoned in conformance with current regulations. If the abandonment techniques cannot be determined or if the techniques used are outdated and unsafe, Mr. Hagemann and Mr. Sutherland recommend that the wells “should be re-abandoned to meet modern [] requirements.”⁸⁶

12.28

In addition to failing to identify oil and gas wells on the site, the DEIR does not adequately analyze the potential for pesticides in Project site soils or groundwater. The DEIR references Monterey County Agricultural Commissioner records but as Mr. Hagemann and Mr. Sutherland point out, the analysis is lacking sufficient detail to make a determination as to whether pesticides were used at the site.⁸⁷ This is especially important because approximately 38.7 acres of irrigated cropland are present at the site. According to Mr. Hagemann and Mr. Sutherland, the potential exists for worker exposure to hazardous pesticides “through inhalation and dermal contact with soil and dust that may be contaminated.”⁸⁸ Mr. Hagemann and Mr. Sutherland conclude that the DEIR should be revised to include soil sampling and analysis for organochlorine pesticides and arsenic.⁸⁹

12.29

In order to enable an analysis of the environmental setting and thus whether potentially significant impacts could exist, a Phase I ESA is necessary.⁹⁰ The County must determine if past uses on the Project site resulted in hazards that are actually present before approving the Project. Failure to assess the real conditions on the Project site may result in unanalyzed and unmitigated impacts to worker health and the environment.

12.30

⁸⁴ Hagemann Comments, pp. 2-3.

⁸⁵ *Id.*, at 3.

⁸⁶ *Id.*

⁸⁷ *Id.*

⁸⁸ *Id.*, at 4.

⁸⁹ *Id.*

⁹⁰ *Id.*, at 2.

V. THE DEIR LACKS SUBSTANTIAL EVIDENCE TO SUPPORT ITS CONCLUSIONS REGARDING THE PROJECT'S SIGNIFICANT IMPACTS AND FAILS TO INCORPORATE ALL FEASIBLE MITIGATION MEASURES NECESSARY TO REDUCE SUCH IMPACTS TO A LEVEL OF INSIGNIFICANCE

CEQA has two basic purposes, neither of which the DEIR satisfies. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project.⁹¹ CEQA requires that an agency analyze potentially significant environmental impacts in an EIR.⁹² The EIR should not rely on scientifically outdated information to assess the significance of impacts, and should result from “extensive research and information gathering,” including consultation with state and federal agencies, local officials, and the interested public.⁹³ To be adequate, the EIR should evidence the lead agency’s good faith effort at full disclosure.⁹⁴ Its purpose is to inform the public and responsible officials of the environmental consequences of their decisions before they are made. For this reason, the EIR has been described as “an environmental ‘alarm bell’ whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return.”⁹⁵ Thus, the EIR protects not only the environment but also informed self-government.”⁹⁶

12.31

Second, CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring alternatives or mitigation measures.⁹⁷ The EIR serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to “identify ways that environmental damage can be avoided or significantly reduced.”⁹⁸ If a project has a significant effect on the environment, the agency may approve the project only upon a finding that it has “eliminated or substantially lessened all significant effects on the environment where feasible,” and that any unavoidable

⁹¹ Cal. Code Regs., tit. 14, § 15002, subd. (a)(1) (hereinafter, “CEQA Guidelines”).

⁹² See Pub. Resources Code § 21000; CEQA Guidelines § 15002.

⁹³ *Berkeley Keep Jets Over the Bay Comm. v. Board of Port Comm.* (2001) 91 Cal. App.4th 1344, 1367 and *Schaeffer Land Trust v. San Jose City Council*, 215 Cal.App.3d 612, 620.

⁹⁴ CEQA Guidelines § 15151; see also *Laurel Heights I* (1998) 47 Cal.3d 376, 406.

⁹⁵ *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.

⁹⁶ *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 564 (citations omitted).

⁹⁷ CEQA Guidelines § 15002(a)(2)-(3); *Berkeley Keep Jets Over the Bay Com.*, 91 Cal.App.4th at 1354.

⁹⁸ CEQA Guidelines § 15002 subd. (a)(2).

significant effects on the environment are “acceptable due to overriding concerns” specified in CEQA section 21081.⁹⁹

The DEIR fails to provide substantial evidence to support its conclusions regarding the Project’s significant impacts. The DEIR also fails to propose feasible measures to reduce significant impacts that are identified in the DEIR, including the Project’s significant impacts on air quality and biological resources. As a result, the DEIR fails to inform decision makers and the public of the Project’s potentially significant environmental effects and to reduce damage to the environment before they occur. An EIR may conclude that impacts are insignificant only after providing an adequate analysis of the magnitude of the impacts and the degree to which they will be mitigated. Thus, if the lead agency, here Monterey County, fails to investigate a potential impact, its finding of insignificance simply will not withstand legal scrutiny.¹⁰⁰

12.31

A. The DEIR Fails to Adequately Analyze and Mitigate the Project’s Impacts on Biological Resources

The DEIR’s treatment of potential significant impacts to biological resources falls exceptionally short of complying with CEQA’s mandate to analyze the Project’s impacts on the environment.¹⁰¹ The County lacks substantial evidence to support a finding regarding the Project’s impacts on biological resources. The DEIR relies on the *Biotic Report, Biological Resources Impact Analysis* and Addendum, and other documents prepared by the Applicant’s consultants H.T. Harvey & Associates.¹⁰² However, there are several deficiencies in the Applicant’s reports and the DEIR’s assessment of the Project’s impacts on biological resources, and in Mr. Cashen’s expert opinion, “the DEIR fails to disclose, analyze, and mitigate potentially significant impacts to all special-status wildlife species.”¹⁰³ Because Mr. Cashen based his opinion on facts specific to the proposed Project, his opinion constitutes substantial evidence that the Project may cause unmitigated significant impacts to biological resources.¹⁰⁴

12.32

⁹⁹ CEQA Guidelines § 15092, subd. (b)(2)(A)-(B).

¹⁰⁰ Pub. Res. Code § 21081.6(b); Guidelines § 15126.4(a)(2).

¹⁰¹ See Pub. Res. Code § 21061.

¹⁰² DEIR, p. 4.4-1.

¹⁰³ Cashen Comments, p. 2.

¹⁰⁴ CEQA Guidelines, §15384, subd.(b).

Complete surveys of the current Project area are essential and must be conducted before the Project’s potentially significant impacts to biological resources can be assessed. The limited surveys that were conducted by the Applicant’s consultants, as discussed above, do not constitute substantial evidence. Substantial evidence is defined to include “facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts.”¹⁰⁵ The Applicant’s technical documentation excludes information, including details regarding the survey methods, that is vital for the public to make an informed assessment.¹⁰⁶ This basic information is fundamental and necessary to ascertain the validity of the Applicant’s documentation. In addition, as Mr. Cashen stated in his comments, the DEIR is deficient because it completely ignores several of the species on CDFW’s *Special Animals* list, including, but not limited to: Cooper’s hawk, ferruginous hawk, horned lark, prairie falcon, Lewis’s woodpecker, yellow-billed magpie, and Lawrence’s goldfinch.¹⁰⁷ Mr. Cashen identified many impacts on biological resources in his comments, some of which are discussed below. Any remaining issues detailed in Mr. Cashen’s comments are incorporated herein by reference.

12.32

12.33

1. *Proposed Mitigation Measures for Significant Impacts to Sensitive Species are Insufficient and Vague*

According to Mr. Cashen, the proposed mitigation measures for sensitive species are inadequate, and thus “the County has not ensured Project impacts to sensitive biological resource would be reduced to a less-than-significant level.”¹⁰⁸

Two main components of the County’s proposed mitigation are: (1) Nested Compensatory Mitigation; and (2) a Habitat Mitigation and Monitoring Plan (“HMMP”). Mr. Cashen suggests that “the County fails to identify critical components of the compensatory mitigation package and HMMP” and “[i]nstead, it defers that responsibility back onto itself (as the body responsible for approving anything proposed by the Applicant)—after the CEQA review process terminates.”¹⁰⁹ This precludes the public, resource agencies, and scientific community from being able to submit informed comments on the adequacy of the actual mitigation.

12.34

Mr. Cashen states that these mitigation measures fail to establish:

¹⁰⁵ CEQA Guidelines § 15384.

¹⁰⁶ See Cashen Comments.

¹⁰⁷ *Id.*, at 3.

¹⁰⁸ *Id.*, at 31.

¹⁰⁹ *Id.*, at 31.

(a) the location of potential mitigation sites, the status of the target species at those sites, and the feasibility of acquiring sites in the vicinity of the Project; (b) success standards for the proposed mitigation measures, and a definitive enforcement mechanism that ensures those standards are met; (c) the contingency or remedial action measures that will triggered if success standards are not achieved; (d) the measures that will be implemented to ensure the long-term protection and management of the target species at the mitigation sites; and (e) the required monitoring program, including the monitoring techniques, effort, and frequency.¹¹⁰

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Because the DEIR lacks these fundamental details, Mr. Cashen concludes that the County has not ensured Project impacts to sensitive biological resource would be reduced to a less-than-significant level.¹¹¹

Regarding the CTS and CRLF relocation sites,¹¹² measure B-1(w), it is unclear from the DEIR if these relocation sites have or will have sufficient acreage and habitat quality and/or are available for relocation. Consequently, it is not possible to determine if this vague mitigation measure would be effective for CTS and CRLF.¹¹³ Additionally, in the discussion on CTS daily pre-activity surveys, measure B-1(bb), the DEIR states that “any individual detected during these pre-activity surveys shall be moved to a designated relocation sites identified under B-1(p).”¹¹⁴ However, B-1(p) does not specifically identify and document the actual location(s) and habitat quality of designated relocation sites, but instead discusses wildlife-friendly fence design.¹¹⁵ Similarly, measure B-1(y), Construction Timing, Preconstruction Surveys and Avoidance Measures for California Red-Legged Frog, states that “any individual detected during these pre-activity surveys shall be moved to a designated relocation sites identified under B-1(p).”¹¹⁶ Again, B-1(p) does not specifically identify and document the actual location and habitat quality of designated relocation sites, but

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¹¹⁰ *Id.*, at 31.

¹¹¹ *Id.*, at 31.

¹¹² DEIR, 4.4-144.

¹¹³ Cashen Comments, p. 37.

¹¹⁴ DEIR, p. 4.4-148.

¹¹⁵ DEIR, p. 4.4-138.

¹¹⁶ DEIR, p. 4.4-145.

instead discusses wildlife-friendly fence design. The County must revise the DEIR to address these errors and recirculate the DEIR for public review. Therefore, proposed mitigation measures to reduce significant impacts to sensitive species are insufficient and vague.

12.35

2. Potential Significant Impacts on Burrowing Owls were Not Properly Identified and Mitigated

The DEIR states that “[i]f suitable burrows for burrowing owls are identified during preconstruction surveys, mitigation measure B-1(m) shall be implemented.”¹¹⁷ The Avoidance and Mitigation Efforts in B-1(m) are discussed as, “[t]he appropriateness of using reduced buffer distances or burrow-specific buffer distances shall be established on a case-by-case basis by a qualified ornithologist who may consult with CDFW...If no suitable alternative natural burrows are available for the owls, then, for each owl that is evicted, at least two artificial burrows shall be installed in suitable nearby habitat areas.”¹¹⁸

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Mr. Cashen found that there was no discussion on long-term maintenance of the artificial burrows and that the DEIR did not “provide measures to indicate that successful occupation of the artificial burrows by owls will be determined or is required. These mitigation efforts, therefore, are incomplete and do not qualify as acceptable measures to mitigate Project impacts on this special-status bird.”¹¹⁹

3. Failure to Adequately Mitigate Impacts to the San Joaquin Kit Fox

The DEIR states that the San Joaquin kit fox was detected on the Project site.¹²⁰ In discussing the use of the Project area as a wildlife movement corridor for these species, it states that “[g]iven the remote location of the project site, the low level of development in the vicinity, the relatively low degree of disturbance on the site and the presence of natural habitats on and adjacent to the project site, it is highly likely that wildlife move freely through the site; however the site is unlikely to serve as a distinct or important movement corridor or habitat linkage for any

12.37

¹¹⁷ DEIR, p. 4.4-134.

¹¹⁸ DEIR, p. 4.4-136.

¹¹⁹ Cashen Comments, p. 36.

¹²⁰ DEIR, p. 4.4-76.

protected or managed species.”¹²¹ However, Mr. Cashen’s review suggests that there is no substantial evidence to support this conclusion.¹²² Given that the Project area “represents the northern target zone for kit fox connectivity through the Carrizo Plain” and that the kit fox occurs in and around the Project area, a conservative conclusion offered by Mr. Cashen would be that the Project area is included within an established population of the kit fox; and/or the Project area is serving as a frequently used movement corridor.¹²³ In this case, wildlife corridor modeling is essential for an adequate evaluation of the Project’s significant impacts on wildlife movement through the 3,000-acre Project area.

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In addition, kit fox den avoidance measures described in the DEIR are inadequate.¹²⁴ Mr. Cashen states that “[o]ne of the stated prescriptions is the implementation of buffers of 100-200 feet to avoid dens including natal dens, with up to 500 feet for natal dens during construction. However, these buffers are severely inadequate because, even during the pup-rearing season, nightly movements average greater than 6 miles.”¹²⁵

4. Failure to Adequately Analyze and Mitigate Impacts to Avian Species

Avian species impacted by the Project include the golden eagle and the Swainson’s hawk. The golden eagle is protected under both state and federal law and the Project site provides nesting and foraging habitat for golden eagles.¹²⁶ The DEIR provides the following conclusion pertaining to Project impacts to golden eagles:

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- “[p]roject development would permanently affect up to 2,188 acres of golden eagle foraging habitat within the project site...This could potentially result in reduced reproductive output and success, increased competition between territories, or abandonment of territories or nests if available foraging habitat in the region proved limiting.”¹²⁷
- “[o]ther construction-related disturbances could result, including activities and noise associated with earth moving, grading, vegetation removal, and

¹²¹ DEIR, p. 4.4-81.

¹²² Cashen Comments, pp. 14, 38.

¹²³ *Id.*, at 14.

¹²⁴ *Id.* at 38; DEIR, p. 4.4-126-133.

¹²⁵ Cashen Comments, p. 38.

¹²⁶ *Id.*, at 9.

¹²⁷ DEIR, p. 4.4-98.

installation of Project infrastructure. These disturbances may alter foraging behavior of golden eagles nesting near the site, which could lead to reduced productivity and nestling survival.”¹²⁸

- “[a]lso, the increased traffic may disrupt eagle foraging and movement at the project site, again potentially reducing eagle productivity and survival.”¹²⁹

12.38

Each of these impacts would constitute a take, as defined by the Federal Bald and Golden Eagle Protection Act (“Eagle Act”). As a result, the Project will require an incidental take permit from the USFWS. Mr. Cashen concludes that the DEIR fails to assess the Project’s compliance with the Eagle Act, or establish a mechanism that ensures the Applicant consults with the USFWS regarding the need for an eagle take permit.¹³⁰ As a result, “the Project would have a significant and unmitigated impact to golden eagles.”¹³¹ In addition, as explained above, the DEIR does not require protocol-level surveys for the Swainson’s hawk prior to Project construction, and as a result, Mr. Cashen believes that Project impacts to the Swainson’s hawk remain potentially significant and unmitigated.¹³²

12.39

In addition to direct impacts to special status species, the DEIR fails to adequately address the potential for avian collisions. Mr. Cashen states that at PV facilities, birds appear to mistake the broad reflective surfaces of the solar arrays for water, trees, and other attractive habitat.¹³³ When this occurs, Mr. Cashen states that “the birds become susceptible to mortality by: (a) colliding with the solar arrays; or (b) becoming stranded (often injured) on a substrate from which they cannot take flight, thereby becoming susceptible to predation and starvation.”¹³⁴

12.40

The DEIR’s analysis of the collision risk to birds is limited to the following:

Solar facilities also present risk for bird collisions with solar panels. Birds migrating at night or moving between the perennial and ephemeral streams on the project site or the adjacent stock ponds would also be at an increased risk of collision with the solar panels as

¹²⁸ DEIR, p. 4.4-98.

¹²⁹ DEIR, p. 4.4-99.

¹³⁰ Cashen Comments, p. 9.

¹³¹ *Id.*

¹³² *Id.*, at 10.

¹³³ *Id.*, at 30; *See Attachment D.*

¹³⁴ *Id.*

the panels might be mistaken for open sky or water. Based on the known distribution of the species in the project area, observations made during surveys, and fatality results emerging from other solar sites in California (Western EcoSystems Technology, Inc. 2014), some collision mortality is anticipated to occur.¹³⁵

As Mr. Cashen points out, “the collision risk posed by the Project’s solar arrays *is not* limited to birds migrating at night or birds moving between water features.”¹³⁶ A recent study completed by the National Fish and Wildlife Forensics Laboratory (2014) reported:

“solar facilities appear to represent ‘equal-opportunity’ hazards for the bird species that encounter them. The remains of 71 species were identified [at three solar facilities], representing a broad range of ecological types. In body size, these ranged from hummingbirds to pelicans; in ecological type from strictly aerial feeders (swallows) to strictly aquatic feeders (grebes) to ground feeders (roadrunners) to raptors (hawks and owls). The species identified were equally divided among resident and non-resident species, and nocturnal as well as diurnal species were represented.”¹³⁷

Mr. Cashen believes that the level of bird mortality due to collisions cannot be accurately estimated because the “Applicant’s consultant did not conduct any surveys to assess avian abundance in the Project area.”¹³⁸ Without a defensible, quantitative estimate of likely mortality, the County does not have the basis to defend its conclusion that avian mortalities would be mitigated to a less-than-significant level.¹³⁹ Moreover, the DEIR does not contain any specific measures to mitigate avian collisions with the Project’s solar arrays. As a result, Mr. Cashen concludes that “the Project would have an unmitigated significant impact to special-status bird species, including species protected by Fish and Game Code and/or the Migratory Bird Treaty Act.”¹⁴⁰ Therefore, the analysis and mitigation proposals in the DEIR are

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¹³⁵ DEIR, p. 4.4-106.

¹³⁶ *Id.*, at 30.

¹³⁷ Kagan RA, TC Viner, PW Trail, EO Espinoza. 2014. *Avian Mortality at Solar Energy Facilities in Southern California: A Preliminary Analysis*. National Fish and Wildlife Forensics Laboratory. 28.

¹³⁸ DEIR, Appendix E1, p. 17.

¹³⁹ DEIR, p. 4.4-106.

¹⁴⁰ Cashen Comments, p. 31.

inadequate to address predicted impacts to avian species, and the DEIR must be revised.

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5. Failure to Provide a Discussion of the Impacts Associated with Soil Stabilization on Biological Resources.

The DEIR refers to the use of soil stabilizers, including chemicals, in several areas.¹⁴¹ These chemicals have the potential to cause adverse impacts to biological resources. The soil stabilizers are applied over the ground surface, and vegetation or fauna on the site will come into direct contact with the chemical stabilizers. The DEIR is silent as to any of the potentially significant environmental impacts from the use of chemicals on the site. Absent additional information, including the concentration, and range of frequency of use of the soil stabilizers, comprehensive impacts analysis is barred and the DEIR is legally indefensible.

12.41

B. The DEIR Fails to Properly Evaluate Significant Impacts on Water Resources and the Project Violates the County Code

CEQA requires that an EIR include, among other things, a detailed statement setting forth “[a]ll significant effects on the environment of the proposed project” and “[m]itigation measures proposed to minimize significant effects on the environment.”¹⁴² “For each significant effect, the EIR must identify specific mitigation measures; where several potential mitigation measures are available, each should be discussed separately, and the reasons for choosing one over the others should be stated.”¹⁴³

12.42

The DEIR fails to properly evaluate the significance of impacts on water resources, namely potential flooding and erosion in the Project area. The DEIR identifies several “flood avoidance measures” including:

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- No modules shall be placed in areas where the product of the flow depth and flow velocity is greater than 9 feet per second (corresponding to a hazard level 3, as defined in the *Preliminary Drainage Report*) during a

¹⁴¹ DEIR, pp. 4.3-3, 4.3-7, 4.3-33, 4.3-34.

¹⁴² Pub. Resources Code, § 21100, subd. (b); see also Guidelines, § 15126 [“Significant Environmental Effects of the Proposed Project” and “The Mitigation Measures Proposed to Minimize the Significant Effects” shall be discussed “preferably in separate sections or paragraphs of the EIR.”].

¹⁴³ *Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011, 1027; *Lotus v. Department of Transportation, et al.* (2014) 223 Cal.App.4th 645,653.

- 100-year, 24-hour storm event, based on the results of a design-level drainage analysis;
- No transformers, substations, or inverters shall be placed in areas where the flow depth exceeds 2 feet (corresponding to a hazard level 3, as defined in the *Preliminary Drainage Report*) during a 100-year, 24-hour storm event; and
- Solar modules, transformers, substations, or inverters constructed in areas where any inundation is expected to occur should be placed a minimum of 1 foot above the 100- year water surface elevation.¹⁴⁴

The DEIR states that a design-level drainage analysis would be prepared by the Applicant, based on the *Preliminary Drainage Report*,¹⁴⁵ and would incorporate the above measures and further recommendations, ensuring that “proposed facilities avoid higher flow rates.”¹⁴⁶ The DEIR further implies that following the those measures and recommendations in the future drainage analysis would also ensure compliance with Chapter 16.16 of the Monterey County Code, which prohibits development within 50 feet from the top of the bank of a watercourse.¹⁴⁷ The County clearly admits that there will be “some improvements constructed within 50 feet from the top of the bank of [] drainages.”¹⁴⁸ The County insists that the Project meet the criteria for the exception in the law which requires that:

1. The proposed development will not significantly reduce the capacity of existing rivers or watercourses or otherwise adversely affect any other properties by increasing stream velocities or depths, or diverting the flow; and
2. The proposed new development will be safe from flow related erosion and will not cause flow related erosion hazards or otherwise aggravate flow related erosion hazards.¹⁴⁹

There are several problems with the DEIR’s analysis. First, the DEIR identifies this impact as less than significant based on its assurances that it will incorporate those measures and other unknown recommendations.¹⁵⁰ In *Lotus v.*

¹⁴⁴ DEIR, p. 4.9-26.

¹⁴⁵ DEIR, Appendix J1.

¹⁴⁶ DEIR, p. 4.9-3.

¹⁴⁷ MCC 16.16.050 (K).

¹⁴⁸ DEIR, p. 4.9-26.

¹⁴⁹ MCC 16.16.050 (K).

¹⁵⁰ DEIR, p. 4.9-27.

Department of Transportation, an EIR approved by CalTrans contained several measures “[t]o help minimize potential stress on the redwood trees” during construction of a highway.¹⁵¹ Although those measures were clearly separate mitigation, the project proponents considered them “part of the project,” and the EIR concluded that because of the planned implementation of those measures, no significant impacts were expected.¹⁵² However, the Appellate Court found that because the EIR had “compress[ed] the analysis of impacts and mitigation measures into a single issue, the EIR disregard[ed] the requirements of CEQA.”¹⁵³ The Court continued, stating “[a]bsent a determination regarding the significance of the impacts... it is impossible to determine whether mitigation measures are required or to evaluate whether other more effective measures than those proposed should be considered.”¹⁵⁴

Similarly, the DEIR for this Project states that “[c]ompliance with the recommendations contained in the design-level analysis would ensure that impacts are less than significant.” Those recommendations, including specific “flood risk avoidance measures” outlined in the DEIR, are comparable to the risk avoidance measures at issue in *Lotus*.¹⁵⁵ The DEIR must separately identify and analyze the significance of the impacts to water resources before proposing mitigation measures. The clear violation of MCC 16.16 by developing with 50 feet of the top of a watercourse must be evaluated as a potential significant impact to be avoided or mitigated. If the County’s analysis includes mitigation that relies solely on compliance with those measures, then it should characterize such compliance as mitigation for the significant impact, rather than treating the impact as less than significant and claiming “[n]o mitigation is required.”¹⁵⁶

Nevertheless, even if the County treats those measures and compliance with MCC 16.16 as mitigation, those measures fail to reduce potential impacts to less than significant levels. According to hydrology expert Dr. Tom Myers, the flow estimates relied upon in the *Preliminary Drainage Report* and DEIR are inaccurate and

¹⁵¹ *Lotus*, 223 Cal.App.4th at 650.

¹⁵² *Id.*, at 651.

¹⁵³ *Id.*, at 656.

¹⁵⁴ *Id.*

¹⁵⁵ DEIR, p. 4.9-26.

¹⁵⁶ *Id.*

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flooding and erosion potential is “significantly underestimate[d].”¹⁵⁷ Therefore, the County has failed to show the impact is less than significant or could be reduced to a less than significant level using the measures outlined in the DEIR.

Dr. Myers concludes that because flow velocities and potential erosion may have been “significantly underestimated,” the DEIR fails to provide substantial evidence that Impact HYD-5 is less than significant.¹⁵⁸ Indeed the DEIR should be revised to evaluate a potentially significant impact based on accurate calculations, and to implement proper mitigation measures. As Dr. Myers points out, the “flood avoidance measures”¹⁵⁹ discussed in the DEIR are not based on accurate calculations and therefore do provide substantial evidence that they would reduce the impact.¹⁶⁰ As it stands now, the analysis in the DEIR “completely neglects that ephemeral streams with occasional high flows have significant erosion potential.”¹⁶¹ In addition, the level of mapping used in the DEIR makes it “simply impossible to define these zones with sufficient accuracy to keep the modules out of them.”¹⁶² Updated calculations and sufficient information could “significantly change the area available for development,” which would require new hazard mapping for determining appropriate areas for placing the modules.¹⁶³ The DEIR has not provided substantial evidence that Impact HYD-5 is less than significant and has failed to provide accurate calculations for the public to make an informed assessment.

12.44

C. The DEIR Fails to Adequately Analyze and Mitigate Significant Air Quality Impacts

An EIR must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project.¹⁶⁴ A prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process.¹⁶⁵ The air quality section of the DEIR is generally inadequate because it fails to disclose

12.45

¹⁵⁷ Letter from Dr. Tom Myers to Laura Horton re: Draft Environmental Impact Report for the California Flats Solar Project, September 16, 2014 p. 3-4 (hereinafter, “Myers Comments”), **Attachment C**.

¹⁵⁸ *Id.*, at 4.

¹⁵⁹ DEIR, p. 4.9-26.

¹⁶⁰ Myers Comments, p. 4.

¹⁶¹ *Id.*, at 6.

¹⁶² *Id.*, at 6.

¹⁶³ *Id.*, at 4, 6.

¹⁶⁴ *Association of Irrigated Residents*, 107 Cal.App.4th at 1390.

¹⁶⁵ *Al Larson Boat Shop, Inc. v. Board of Harbor Commissioners* (1993) 18 Cal.App.4th 729, 748.

information necessary to evaluate the significance of the Project's construction emissions.

12.45

1. *Inadequate Air Quality Mitigation Measures*

NOX and PM10 emissions during construction will exceed significance thresholds for air quality. The DEIR concludes that even with implementation of proposed mitigation measures, the Project's construction emissions would still result in significant impacts to air quality, but that "[n]o other feasible measures are available..."¹⁶⁶ This conclusion is patently wrong and unsubstantiated. A project must mitigate impacts to the greatest extent feasible under CEQA and proposed mitigation measures must be "fully enforceable."¹⁶⁷ The DEIR's attempt to scrape by on the bare minimum violates CEQA's mitigation requirements¹⁶⁸ and produces a document that is inadequate and misleading. The County must analyze these impacts and propose all feasible mitigation measures to reduce the Project's significant air quality and public health impacts in a revised DEIR.

12.46

In their review of proposed mitigation measures, Mr. Hagemann and Mr. Sutherland provide recommendations for several additional measures that should be included in a revised DEIR. For example, mitigation for NOx that has been proposed in other recent CEQA documents¹⁶⁹ may include reduction of exhaust emissions during construction through "the use of diesel haul trucks (e.g., material delivery trucks and soil import/export) that meet U.S. Environmental Protection Agency 2007 model year NOx emissions requirements."¹⁷⁰ In addition, Mr. Hagemann points out that off-road construction equipment for the Project will meet Tier 3 engine technology.¹⁷¹ However, Tier 4 standards, which EPA is currently phasing in, require that "emissions of PM and NOx be further reduced by about 90% through the use of control technologies including advanced exhaust gas after treatment."¹⁷²

¹⁶⁶ DEIR, p. 4.3-1.

¹⁶⁷ Pub. Res. Code § 21081.6(b); Guidelines § 15126.4(a)(2).

¹⁶⁸ See CEQA Guidelines, § 15126.4.

¹⁶⁹ September 2013 Draft Environmental Impact Report Fremont Valley Preservation Project, http://www.co.kern.ca.us/planning/pdfs/eirs/fremont_solar/fremont_solar_deir_vol1.pdf, p. 4.3-33.

¹⁷⁰ Hagemann comments, p. 5.

¹⁷¹ *Id.*, at 5.

¹⁷² *Id.*, at 6.

Mr. Hagemann and Mr. Sutherland also identify further mitigation measures for reduction of PM10, in addition to using Tier 4 technology, that have been incorporated into renewable energy projects in other air districts.¹⁷³ These include:

- Prohibit visible dust from leaving the Project site property line during all construction activities, including trenching and pile-driving;
- Conduct simultaneous sampling (upwind and downwind of construction activities) with air sampling equipment to ensure that PM10 levels do not exceed 50 micrograms per cubic meter. This measure would be consistent with other California air district's rule (see for example, South Coast Air Quality Management District¹⁷⁴ and El Dorado County Air Pollution Control District;
- Prevent "track-out" of soil from construction equipment more than 25 feet onto paved roads; and
- Apply water once per hour to unpaved roads during high wind conditions.¹⁷⁵

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Contrary to the DEIR's assertions, additional mitigation for air quality impacts is available and must be evaluated. The DEIR failed to identify these mitigation measures and thus failed to fulfill CEQA's requirement that significant impacts be mitigated to the greatest extent possible, particularly when an impact has been identified as unavoidable.

2. Failure to Evaluate Impacts from Emissions of Diesel Particulate Matter

As discussed in these comments, the Project will result in significant emissions of harmful air pollutants, including diesel particulate matter emissions, during Project construction and decommissioning. The majority of the Project site is located within the North Central Coast Air Basin ("NCCAB"), which includes Monterey County, San Benito County, and Santa Cruz County. The NCCAB is under the jurisdiction of the Monterey Bay Unified Air Pollution Control District ("MBUAPC"). The southern portion of the private access road is in the South Central Coast Air Basin ("SCCAB"), which includes San Luis Obispo County, Santa Barbara County,

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¹⁷³ *Id.*; AVAQMD Rule 403(D), *Dust Control Plan*, <http://www.avaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=867>.

¹⁷⁴ Rule 403. Fugitive Dust, p.6, <http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf?sfvrsn=4>, p. 6

¹⁷⁵ AVAQMD Rule 403(C), *see* footnote 11, *supra*.

and Ventura County. The SCCAB is under the jurisdiction of the San Luis Obispo County Air Pollution Control District (“SLOAPCD”). The NCCAB and SCCAB are in “nonattainment” for state ozone and particulate matter less than 10 microns (“PM10”) standards.¹⁷⁶

During construction, numerous diesel-powered trucks are required to deliver supplies. Emissions from construction related activities, specifically PM10, are associated with adverse health impacts, such as cancer due to the increased intensity of emissions (during both construction and decommissioning) of diesel particulate matter, a known carcinogen.¹⁷⁷ According to Mr. Hagemann and Mr. Sutherland, the DEIR failed to adequately evaluate the potential for significant air quality impacts resulting from diesel particulate matter (“DPM”) emissions and fails to fulfill the CEQA requirements set forth by MBUAPCD and the SLOCAPCD with regards to DPM.¹⁷⁸

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As explained by Mr. Hagemann and Mr. Sutherland, the estimated DPM for Project construction, averaging to about 0.56 tons/quarter, exceeds the SLOCAPCD Tier 2 threshold.¹⁷⁹ This is a significant impact that was not disclosed or mitigated in the DEIR. Furthermore, Mr. Hagemann and Mr. Sutherland expressed concerns over the County’s failure to adequately examine off-site concentrations of DPM “that will be generated by Project construction, despite claiming that the CEQA guidelines for both air districts were adhered to in preparing the DEIR and supplemental air quality appendices.”¹⁸⁰ Mr. Hagemann and Mr. Sutherland highlight the MBUAPCD guidelines, which state that, “impact analyses for sources of [Toxic Air Contaminants (“TACs)] should include project level and cumulative impacts,”¹⁸¹ and he suggests that a “revised DEIR and supplemental air quality assessment should include a Project-level analysis of DPM that is expected to be generated by construction and any necessary mitigation measures.”¹⁸² Absent this information, the County cannot conclude that the Project’s public health impacts have been fully assessed and properly mitigated.

¹⁷⁶ DEIR, p. 4.3-12 – 4.3-13.

¹⁷⁷ Hagemann Comments, p. 11.

¹⁷⁸ *Id.*, at 7.

¹⁷⁹ *Id.*, at 8.

¹⁸⁰ *Id.*

¹⁸¹ *Id.*

¹⁸² *Id.*

Mr. Hagemann and Mr. Sutherland provide their own screening-level health risk assessment for a child living 1,000 feet away from the Project boundary during construction. The experts conclude that “air quality impacts from construction-related DPM have not been adequately or appropriately evaluated or mitigated” in the DEIR. “DPM associated with Project construction may present an significant impact on air quality and warrants further investigation prior to the Project’s approval.”¹⁸³ Therefore, the DEIR is wholly inadequate and must be revised and recirculated based on accurate calculations and more in-depth analysis, or the County risks ignoring significant air quality impacts.

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3. *Failure to Consider Impacts from Continuous Application of Dust Suppressants*

The DEIR utterly fails to analyze the impacts of dust suppressants. Chemical properties, particularly toxic contaminants, can vary significantly depending on the type of stabilizer (and manufacturer). United States Environmental Protection Agency (“EPA”) experts have found that the use of dust suppressants can

“affect air quality characteristics’ in a number of ways. In arid areas, for example, the use of water may add moisture to air fostering the proliferation of microorganisms. Dust suppressants that adhere to soil particles can be re-entrained into the air with strong winds, potentially adding contaminants to the air in addition to particulate matter. It is noteworthy that dust suppressants have little efficacy at suppressing small respirable dust that have the potential to be inhaled directly into lung parenchyma and cause lung disease.”¹⁸⁴

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Furthermore, EPA found that dust suppressants “could be potentially harmful since smaller dust particles (less than 10mm) can be inhaled” and that they may contain “volatile organic compounds in the products that may be dispersed into the air when the product is applied.”¹⁸⁵

¹⁸³ *Id.*, at 11.

¹⁸⁴ Environmental Protection Agency, *Potential Environmental Impacts of Dust Suppressants: “Avoiding Another Times Beach”* 16 (2004).

¹⁸⁵ *Id.*

With the knowledge that dust suppressants carry known impacts to air quality and human health, the DEIR neglects to make available any details related to potentially existing soil contamination, and the method of application, type of chemical stabilizer, concentration, combination, range or frequency of the proposed use of soil stabilizers. The failure to provide specifics is notable because each type of stabilizer has different effects on the environment; the effectiveness of the DEIR's proposed mitigation is thereby thwarted.

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The County must also assess potentially significant impacts associated with the use of dust suppressants and soil stabilizers, such as from the change in volume, rate, and timing of runoff from the Project site. The DEIR should use a range including a reasonably foreseeable worst-case scenario alternative to evaluate the actual impacts of the soil stabilization. The exclusion of such an assessment prohibits the DEIR from implementing necessary mitigation measures to reduce significant impacts. The County must cure this lack of analysis in a revised DEIR.

D. The DEIR Fails to Adequately Analyze the Project's Impacts on Agricultural Resources

For the purpose of a significance determination under CEQA, the lead agency is required to consider a project's direct and reasonably foreseeable indirect environmental impacts.¹⁸⁶ In particular, CEQA Guidelines sections 15064(d)(2)-(3) provide:

An indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment.

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An indirect physical change is to be considered only if that change is a reasonably foreseeable impact, which may be caused by the project. A change which is speculative or unlikely to occur is not reasonably foreseeable.

According to the DEIR, the solar generating facility area, the northern half of the Project access road, and the majority of the utility corridor are comprised of

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¹⁸⁶CEQA Guidelines § 15064 subd. (d).

Grazing Land; the utility corridor contains both Prime Farmland and Unique Farmland, and a portion of the existing private access road traverses through an area designated as Other Land.¹⁸⁷ The Project site will “temporarily” convert 38.6 acres of Prime Farmland and 0.1 acres of Unique Farmland.¹⁸⁸ The County admits that the Project will result in two types of impacts: direct impacts in the form of temporary loss of land within the project sites’ boundaries for agricultural use, as well as indirect impacts on adjacent agricultural use “due to temporary construction-related effects.”¹⁸⁹

However, the DEIR concludes that both impacts will be less than significant, in part because of the temporary nature of the impacts.¹⁹⁰ The DEIR states that “[t]emporary construction-related impacts would not permanently impact existing agricultural use of the site” and that the “property owner could resume agricultural production on the site consistent with existing operations once the construction of utility improvements is complete. All impacts would be temporary in nature and no permanent loss of agricultural production would occur.”¹⁹¹ The DEIR also claims that measures included as part of the Project enable the County to find that impacts are less than significant. The DEIR is legally insufficient for three reasons.

First, temporary impacts alone can be significant. The conclusion that impacts to agricultural lands will be insignificant or temporary cannot be squared with the Monterey County General Plan’s prohibition on “land uses that would interfere with routine and on-going agricultural operations on Farmlands designated Prime Farmland, Unique Farmland.”¹⁹² There is no support for the claim that because a significant impact and clear violation of local law is temporary, that it should be ignored.

Second, the DEIR vaguely states that other improvements within the utility corridor, apart from the agricultural plot, “would be permanent” but that use of the agricultural portion could resume after construction.¹⁹³ The DEIR acknowledges that construction impacts could “potentially result in temporary disturbances to adjacent

¹⁸⁷ DEIR, p. 4.2-3.
¹⁸⁸ DEIR, p. 4.2-8.
¹⁸⁹ DEIR, p. 4.2-1.
¹⁹⁰ *Id.*
¹⁹¹ DEIR, p. 4.2-8.
¹⁹² DEIR, p. 4.2-5.
¹⁹³ DEIR, p. 4.2-8.

grazing activities.”¹⁹⁴ However, the DEIR does not evaluate permanent indirect impacts in relation to the surrounding agricultural use.

Third, the DEIR’s conclusion regarding agricultural resources suffers from the same legal deficiency as its conclusion regarding water resources. The DEIR does not properly evaluate significant impacts to adjacent agricultural lands because it relies on mitigation measures that are mischaracterized as being “part of the project.”¹⁹⁵ The DEIR lists potential measures to “minimize the extent” of those impacts, which includes other mitigation measures found throughout the DEIR.¹⁹⁶ Those measures include “the implementation of Best Management Practices (BMPs) during project construction, including installing mud shakers and/or rumble strips to limit the transport of invasive species, implementing applicable SWPPP and erosion control measures, implementing a dust control plan to minimize fugitive dust emissions, developing a hazardous materials response plan, and implementing a post-construction restoration and revegetation plan.” As with the faulty evaluation of flooding and erosion discussed above, the DEIR concludes that clear agricultural impacts are less than significant because of the incorporation of these measures, without analyzing the measures as mitigation specifically crafted for the impact on agricultural resources.

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The DEIR disregards potential significant impacts to agricultural lands within the Project site because of misguided reliance on the “temporary” aspect of construction. In addition, the DEIR does not properly evaluate significant impacts to adjacent agricultural lands because it relies on mitigation measures that are mischaracterized as being “part of the project”¹⁹⁷ or are mitigation measures intended for other significant impacts. For these reasons, the conclusions in the DEIR lack necessary substantial evidence and the County’s analysis of the Project’s impacts on agricultural resources must be revised.

E. The DEIR Fails to Adequately Analyze and Mitigate Significant Impacts Related to Traffic

As the California Supreme Court has observed, “[t]he EIR’s function is to ensure that government officials who decide to build or approve a project do so with a

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¹⁹⁴ DEIR, p. 4.2-10.

¹⁹⁵ *Lotus*, 223 Cal.App.4th at 656.

¹⁹⁶ DEIR, p. 4.2-10.

¹⁹⁷ *Lotus*, 233 Cal.App.4th at 656.

full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been taken into account.”¹⁹⁸ In order for an EIR to meet those goals, it must “present information in such a manner that the foreseeable impacts of pursuing the project can actually be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made.¹⁹⁹ Furthermore, California courts have found that an EIR is inadequate if “[t]he success or failure of mitigation efforts . . . may largely depend upon management plans that have not yet been formulated, and have not been subject to analysis and review within the EIR.”²⁰⁰

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Here, the DEIR did not properly evaluate significant impacts related to traffic nor did it formulate clear and enforceable mitigation measures to reduce those impacts. For example, the Project will admittedly create significant and unavoidable impacts due to the amount of traffic to be generated during construction and the resulting hazards that will be created.²⁰¹ The areas in question already operate at an unacceptable level for traffic and accident rates are currently more than two times the statewide average.²⁰² Project generated traffic during the operational phase would add an additional 20 trips per day to this roadway segment, resulting in a significant impact to roadway operations based on Caltrans significance thresholds. The County admits that the impacts will remain significant and unavoidable until the completion of a Caltrans road widening project in the area. However, there is no clear timeline for the completion of that project, and it will likely not be completed until well after the construction phase is over, according to the little information provided in the DEIR.²⁰³ There is no indication that the County has attempted to mitigate these impacts through alternative means.

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In addition, the County failed to adequately address and mitigate significant impacts in relation to Impact T-7.²⁰⁴ The County attempts to reduce traffic by developing park-and-ride lots away from the Project site and using employee shuttles

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¹⁹⁸ *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-450 (*Vineyard Area Citizens*; *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 80.

¹⁹⁹ *Id.*

²⁰⁰ *San Joaquin Raptor*, 149 Cal.App.4th at 670; *Communities*, 184 Cal.App.4th at 92.

²⁰¹ DEIR, p. 4.13-2 – 4.13-2.

²⁰² *Id.*

²⁰³ DEIR, p. 4.13-20 (“...the segment from West Center Drive through SR 41 and the segment immediately east of SR 41 are not anticipated to be constructed *until 2018...*”) (emphasis added).

²⁰⁴ DEIR, p. 4.13-25.

for 95% of the workers.²⁰⁵ However, the DEIR does not provide an analysis of the potential impacts resulting from the development of the park-and-ride lots, even though it acknowledges that “there is the potential for adverse impacts to occur in several issue areas including but not limited to aesthetics, biological resources, water quality and hydrology, noise and transportation and traffic” and that “impacts would therefore be potentially significant.”²⁰⁶ The mitigation for this impact provided in the DEIR is vague and unenforceable. It states:

Any proposed park and ride facilities shall be sited in already developed parking lots designed to accommodate large numbers of vehicles (e.g. shopping center locations). All vehicles shall be required to park in designated parking spaces. These lots shall be currently improved and have existing stormwater drainage infrastructure in place. No permanent new lighting shall be installed. The location of the park and ride facilities within these existing parking lots shall be sited in an area located away from residences and other sensitive receptors to limit nighttime disturbance from noise.

However, the DEIR does not identify suitable lots, account for the possibility that suitable areas fitting that description may not be easily found, or consider that new lots would have to be developed. The entire traffic analysis is dependent on the existence of these lots; therefore a detailed plan must be provided for the siting and potential development of the lots. A loose assumption that the facilities already exist and just need to be located fails to comply with the requirements of CEQA. The potential impacts from the development of the park-and-ride lots could have significant impacts in several areas, as acknowledged in the DEIR. Vague mitigation measures without detailed analysis or enforceable criteria are unlawful. Finally, concluding that the impact is significant and unavoidable without attempting to identify feasible mitigation violates CEQA.

²⁰⁵ DEIR, p. 4.13-3.

²⁰⁶ DEIR, p. 4.3-25.

F. The DEIR Relies on Uncertain Mitigation for Significant Impacts on Public Services

The DEIR concludes that potential insufficient emergency access for fire or emergency medical services and subsequent slower response times constitutes a significant impact.²⁰⁷ The mitigation offered for this impact includes “measures to assure sufficient fire protection services in accordance with existing standards [that] shall be subject to the review and approval of Cal Fire.”²⁰⁸ That measure includes a future agreement with Cal Fire to “provide sufficient fire protection services during the non-peak fire season for the duration of project construction via provision of sufficient funding and other measures...”²⁰⁹ The DEIR further states that “year round staffing at the local Cal Fire station during the construction phase would address response times to the site,” reducing the impact to a less than significant level.²¹⁰ It is clear that additional funding for Cal Fire is essential to mitigate the impact.

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However, what is unclear is how or from whom Cal Fire will acquire this funding. Infeasible and uncertain mitigation is not mitigation at all. The County has a duty to propose and analyze a reasonable range of mitigation measures for each significant impact, including identifying a source or alternative sources of funding. The County has not met this burden, providing only vague assurances that an agreement with Cal Fire will be completed and funding secured. Therefore, the impact on public services remains significant until the DEIR provides a detailed plan for the implementation of this mitigation.

G. The DEIR Fails to Adequately Analyze Potentially Significant Impacts Caused by Decommissioning Activities.

At the end of the Project’s “useful life,” anticipated in the DEIR to be 30 to 40 years, the Project will be decommissioned.²¹¹ As explained above, the decommissioning phase of the Project is part of the whole of the Project. The description and analysis provided by the DEIR regarding the decommissioning activities are insufficient to achieve CEQA’s mandate for an information document. Moreover, as a project-level EIR, no further environmental review would be necessary

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²⁰⁷ DEIR, p. 4.12-1.

²⁰⁸ DEIR, p. 4.12-1 – 4.12-2, 4.12-10.

²⁰⁹ *Id.*

²¹⁰ *Id.*

²¹¹ DEIR, p. 2-87.

to carry out the Project; therefore, the same level of detail the EIR provides on the Project's construction and operation impacts must be provided for decommissioning.

The DEIR frames the Project as a "temporary" displacement of agricultural resources. Concrete assurances are needed to guarantee that the impacts are indeed temporary, hence the need for a well defined and detailed restoration plan. There are documented impacts from non-operational power generation facilities with equipment that have been left to deteriorate on agricultural land. The impacts are not confined to the boundaries of the Project.

Project materials include PV panels, an electrical collection and inverter system, two on-site substations, a switching station, an operations and maintenance (O&M) facility, a perimeter security fence, and related infrastructure.²¹² During Project decommissioning these materials would have to be removed. The County must provide a complete description of the decommissioning activities necessary to assess all of the Project's impacts. The decommissioning of solar energy facilities and reclamation of solar energy facility sites has been associated with noise, air quality, biological resources, hazardous materials and waste management, human health and safety, soils and geologic resources, transportation, water resources, water quality and flow alteration impacts.²¹³ This is particularly true when multiple proposed solar projects in the area will be decommissioned at approximately the same time. The public and decision makers cannot engage in a meaningful assessment of these potential impacts, without a proper description and analysis of impacts.

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The DEIR provides minimally useful information in Conceptual Restoration Plan for Project Decommissioning,²¹⁴ along with a statement that "[n]o less than eighteen (18) months prior to the expiration of the CDP, the Applicant (or successor in interest) shall submit a proposed Decommissioning and Restoration Plan (Decommissioning Plan) to the County of Monterey."²¹⁵ The DEIR attempts to dispel its requirement for full disclosure and analysis of potential impacts by stating that decommissioning "is similar to constructing the project" and providing only a minimal and generalized evaluation of potential steps to be taken at decommissioning.²¹⁶ As

²¹² DEIR, pp. 2-13, 2-73.

²¹³ Tribal Energy and Environmental Clearinghouse, Solar Energy Decommissioning/Site Reclamation Impacts, available at: <http://teeic.anl.gov/er/solar/impact/decom/index.cfm>.

²¹⁴ DEIR, Appendix E.4.

²¹⁵ DEIR, p. 2-89.

²¹⁶ DEIR, Appendix E.4, p. 3.

explained above, under CEQA, if a project description and evaluation is not complete, then environmental review for the project has not been fully conducted.

Furthermore, the County has enough information, such as the type of equipment to be utilized and range of activities to be performed, as well as baseline knowledge of impacts resulting from the Project's construction and operation, to make a reasonable assessment of impacts the decommission and restoration phase might yield. The courts may not look for "perfection" but would expect "adequacy, completeness, and a good faith effort at full disclosure,"²¹⁷ which is not achieved through unsubstantiated claims, as is the case here. Moreover the County is open to a "prejudicial abuse of discretion ... if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process."²¹⁸

For example, the DEIR fails to adequately investigate and mitigate air quality impacts related to decommissioning, assuming that "air quality emissions generated during future decommissioning would be similar to air quality emissions generated during the construction phase of the proposed project."²¹⁹ The County's insistence that describing specific activities and resulting impacts would be "too speculative" indicates nothing more than an unwillingness to provide a detailed analysis of the whole Project.²²⁰ Aside from the inherent uncertainty, the DEIR provides no evidentiary support that the impacts associated decommissioning will be similar or less than those associated with construction of the Project. The construction phase already produces emissions beyond an acceptable threshold, and while the DEIR does acknowledge that the impacts of decommissioning would be significant and unavoidable, it is unclear whether the mitigation measures for construction would be required during decommissioning. The DEIR states merely that the measures for construction, "or equivalent measures based on available technology at the time of project decommissioning, would be required during project decommissioning, *if proposed*."²²¹ Furthermore, as discussed above, there are other feasible mitigation measures that can and should be required to mitigate significant air quality impacts before the County can legally conclude that the impacts are unavoidable.

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²¹⁷ CEQA Guidelines, section 15151.

²¹⁸ *Laurel Heights Improvement Assn. v. Regents of University of California* 47 Cal.3d at pp. 403-405, 253 Cal.Rptr. 426, 764 P.2d 278.

²¹⁹ DEIR, p. 4.3-21.

²²⁰ *Id.*

²²¹ DEIR, p. 4.3-36 – 4.3-37 (*emphasis added*).

The assumption that impacts related to decommissioning are similar to construction is unsubstantiated, as decommissioning activities are completely dissimilar. Unlike construction where the solar panel infrastructure was driven into the ground, decommissioning would require excavation and ripping the steel framework from the earth. The simple action of ripping versus driving an object into the ground is logically associated with increased dust and particulate matter into the air. The concentration build up of the dust suppressant in the soil mixed with the increased ground disturbance could create an impact to air quality that is more significant than those associated with construction. The continual application of soil stabilizers over a 30-40 year period could result in the manifestation of additional challenges in achieving restoration to pre-existing conditions. The DEIR is silent as to what lasting impacts the soil stabilizers would have on future restoration, in part because, as discussed above, the DEIR omits specificity with regard the management of dust suppression.

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If decommissioning activities are left to languish, conceivably well beyond the 12-24 month construction period, the impacts to the air quality could potentially increase as the area, its residences and biological resources would incur significant long-term exposure to decommissioning construction-related activities, including increased intensity of diesel emissions, which as Mr. Hagemann and Mr. Sutherland highlight in their comments are known to produce a significant health impact.²²²

To properly disclose the Project's impacts from decommissioning the County must revise the DEIR to include the type (i.e., direct, indirect, or cumulative), the duration (i.e., temporary or permanent), the nature (i.e., source), and extent (i.e. scale) of the associated potential impacts. The County must then engage in the development of mitigation measures that are certain, enforceable, and linked to measurable performance standards. Absent additional information, the County cannot conclude that the Project's decommissioning impacts have been fully assessed and properly mitigated.

H. The DEIR Fails to Adequately Disclose, Analyze and Mitigate the Project's Odor Impacts

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The DEIR states:

²²² Hagemann Comments, p. 10-11.

Odor emissions from the project would be limited to odors associated with vehicle and engine exhaust and fueling during construction... Construction-related odors would be short-term, and would cease upon completion. There are two residences located within 1,000 feet of the project site, and due to the size of the project site, these residences would only be exposed to construction activity for a relatively short portion of the total construction schedule. Therefore, short-term fueling odors during construction would not impact a substantial number of people.²²³

This “analysis” is entirely inadequate and the DEIR’s conclusion regarding the significance of odor impacts is unsupported.

Diesel exhaust odor can be objectionable to people, and EPA has found that, at high intensities, diesel exhaust may produce sufficient physiological and psychological effects to warrant concern for public health.²²⁴ The DEIR effectively admits to potential odor impacts but downplays those impacts by focusing on the “short-term” nature of construction phase and the direction of prevailing wind away from nearby residences.²²⁵ However, the construction phase could last up to 24 months, which might not be considered “short-term” to those living in nearby residences. In addition, the Air Quality Analysis²²⁶ concluded that a detailed odor analysis was not warranted because the number of odor sources sensitive receptors was sparse.²²⁷ Regardless of whether the impacts are temporary, or how many neighbors are affected, a potential significant impact exists and the DEIR’s analysis of those potentially significant odor impacts is inadequate. Construction will require a significant amount of heavy duty equipment and many daily vehicle trips around the Project site.²²⁸ The DEIR’s conclusion that the Project would not cause significant odor impacts is unsupported. Substantial evidence shows that the Project may cause significant odor impacts. The DEIR must be revised to adequately disclose, analyze and mitigate the Project’s potentially significant odor impacts.

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²²³ DEIR, p. 4.31-32.

²²⁴ Environmental Protection Agency, *Health Assessment Document for Diesel Engine Exhaust*, 5-4 (2002) <http://www.epa.gov/ttn/atw/dieselfinal.pdf>.

²²⁵ DEIR, p. 4.3-31.

²²⁶ DEIR, Appendix C1.

²²⁷ DEIR, Appendix C1, p. 37.

²²⁸ DEIR, p. 4.3-23, 4.3-39; DEIR, Appendix C1 [Appendix A: Air Quality Data].

VI. THE DEIR FAILS TO ADEQUATELY IDENTIFY AND ANALYZE THE PROJECT'S CUMULATIVE IMPACTS

CEQA requires consideration of the incremental impacts caused by a project, together with other past, present, and reasonably foreseeable future projects, including projects outside of the lead agency's jurisdiction.²²⁹ As defined by the CEQA Guidelines, a cumulative impact is one "which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts."²³⁰ The potentially significant impacts of the proposed Project must be considered in conjunction with the impacts from these other projects.

[T]he statutory injunction to assess "the incremental effects of an individual project ... in connection with the effects of *past projects*, the effects of other current projects, and the effects of probable future projects" (Pub. Resources Code, § 21083, subd. (b)(2), italics added) signifies an obligation to consider the present project in the context of a realistic historical account of relevant prior activities that have had significant environmental impacts.²³¹

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Thus, a legally adequate "cumulative impacts analysis" views a particular project over time and in conjunction with other related past, present, and reasonably foreseeable probable future projects whose impacts might compound or interrelate with those of the project at hand.²³² A lead agency's cumulative impact analysis is invalid under CEQA if it fails to adequately reflect the severity and significance of a

²²⁹ CEQA Guidelines, § 15064(h)(1); *see also* 15355, subd. (b) ["The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."]; *see also Los Angeles Unified School Dist. v. City of Los Angeles* (1997) 58 Cal.App.4th 1019, 1024-1025.

²³⁰ CEQA Guidelines § 15130 subd. (a)(1).

²³¹ *Environmental Protection Information Center v. California Dept. of Forestry and Fire Protection* (2008) 44 Cal.4th 459, 524 (emphasis in original).

²³² *See* CEQA Guidelines, § 15355 subd. (b) ("Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time"); *see also Communities for a Better Environment v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 117.

project's cumulative impacts.²³³ “The disparity between what was considered and what was known is the basis upon which . . . [a court] will find abuse of discretion.”²³⁴

As discussed in this comment letter, the Project may have significant impacts on agriculture, air quality, water resources, protected and sensitive biological resources, traffic, odor and public health. These significant impacts may become even more significant when viewed in connection with past, current and reasonably foreseeable future projects. When these projects are considered with the County's other pending industrial, commercial and residential projects in the same region, the impacts may be even greater.²³⁵ While the DEIR does identify the size and location of other renewable energy projects in the region, it does not isolate those projects that would be constructed concurrently with the Project.²³⁶ The DEIR states that “the cumulative analysis assumes that all projects in the cumulative scenario are built and operating during the operating lifetime of the proposed California Flats Solar Project”²³⁷ but it is not clear whether the DEIR considers overlap of actual construction, which is when the most significant environmental impacts will occur.

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Despite the number of past, present and foreseeable projects in the same region, the County does not address potential significant impacts, but merely states that “[s]ignificant adverse impacts of the cumulative projects would be required to be reduced, avoided, or minimized through the application and implementation of mitigation measures” and that the “net effect of these mitigation measures is assumed to be a general lessening of the potential for a contribution to cumulative impacts.”²³⁸ This improperly assumes that the other projects in the region will adequately mitigate all impacts, including cumulative. Furthermore, this analysis does not include any detailed discussion of any of the proposed mitigation measures at other regional projects. It also fails to provide adequate context for projects in the area. The DEIR only provides the location of other solar projects and thus does not allow for a full understanding of the location and environmental context of any of the other projects listed.²³⁹

²³³ See CEQA Guidelines § 15130 subd. (b); see also *San Franciscans for Reasonable Growth v. City and County of San Francisco* (1984) 151 Cal.App.3d 61, 72-73.

²³⁴ *Id.*

²³⁵ This letter incorporates all reasonably foreseeable projects in Monterey County.

²³⁶ DEIR, p. 5-2 – 5-7.

²³⁷ DEIR, p. 5-11.

²³⁸ DEIR, p. 5-1.

²³⁹ DEIR, p. 5-9 – 5-11.

The DEIR misleads the public by stating that “the majority of the projects identified in Table 5-1 would include only minor construction and renovation if any...”²⁴⁰ In fact, many of the projects will require major construction including a 57-mile underground oil pipeline, 92 acre residential development plus future expansion plans for additional facilities, the division of an existing 160 acre parcel into 4 smaller parcels for development, several gas or oil drilling projects, and several projects to convert General Agriculture into Highway Commercial zoning.²⁴¹ Furthermore, even if a *majority* of the projects listed were minor, that still leaves several projects that even the County would consider major. However, the DEIR still severely lacks a detailed cumulative impacts analysis of those major projects.

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The DEIR grossly underestimated the Project’s direct and indirect significant impacts in several areas. The County must conduct an adequate cumulative impacts analysis, which would include a detailed list of past, current and reasonably foreseeable future projects with actual evaluation of their potential impacts in combination with this Project. The DEIR failed to provide such an analysis and therefore must be revised.

VII. THE PROJECT IS INCONSISTENT WITH THE MONTEREY COUNTY GENERAL PLAN AND LAND USE LAWS

For over three decades, the courts have consistently required that use permits must comply with a County’s General Plan. The Court of Appeal opined on this issue in *Neighborhood Action Group v. County of Calaveras*, when it held that the requirement that use permits be consistent with the County General Plan “is necessarily to be implied from the hierarchical relationship of the land use laws. To view them in order: a use permit is stuck from the mold of the zoning law ([Government Code] § 65901); the zoning law must comply with the adopted general plan; the adopted general plan must conform to state law (§§ 65300, 65302).²⁴² Furthermore, the “validity of the permit process derives from compliance with this hierarchy of planning laws. These laws delimit the authority of the permit issuing agency to act and establish the measures of a valid permit...a permit action taken without compliance with the hierarchy of land of land use law is ultra vires as to any defect implicated by the uses sought by the permit.”²⁴³

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²⁴⁰ DEIR, p. 5-11.

²⁴¹ DEIR, p. 5-2 – 5-7.

²⁴² *Neighborhood Action Group v. County of Calaveras* (1984) 156 Cal.App.3d 1176, 1184.

²⁴³ *Id.*

The DEIR concludes that the proposed Project uses are consistent with the General Plan thus eliminating any need for mitigation.²⁴⁴ The conclusion reached is incorrect. Monterey County's 2010 General Plan consists of eight elements, including all of the mandatory elements [land use, circulation, housing, conservation and open space, and safety (includes noise)], plus agriculture, economic development and public services elements.²⁴⁵ The DEIR concludes that with the implementation of mitigation measures found throughout the document, "the proposed project would be consistent with applicable policies of Monterey County's 2010 General Plan and the County of San Luis Obispo General Plan."²⁴⁶ However, there are several policies with which the Project is inconsistent.

For example, the "disturbances to adjacent grazing activities" resulting from Project construction, regardless of the DEIR's insistence that the impacts would be "temporary," conflicts with the General Plan policy that "[l]and uses shall be designated to achieve compatibility with adjacent uses."²⁴⁷ The County does not evaluate this impact as significant based on the nonsensical argument of impermanence, insisting that mitigation measures designed specifically for this impact are not necessary, and points to other mitigation measures found throughout the document without further analysis.²⁴⁸

Another General Plan policy calls for the use of Best Management Practices ("BMPs") to prevent and repair erosion damage.²⁴⁹ Although the DEIR acknowledges that the Project would "alter the existing drainage pattern of the project area [and] may therefore increase runoff, resulting in flooding or increased erosion downstream," the County claims consistency with the General Plan based on its hydrology analysis and an intended erosion control plan.²⁵⁰ However, as Dr. Myers concluded in his expert review, the DEIR substantially underestimates erosion potential, completely neglecting "that ephemeral streams with occasional high flows have significant erosion potential."²⁵¹ Given Dr. Myers' opinion that the DEIR's calculations as to the Project area's erosion potential are flawed, it would be difficult

²⁴⁴ DEIR, p. 4.10-1.

²⁴⁵ DEIR, p. 4.10-3.

²⁴⁶ DEIR, p. 4.10-7.

²⁴⁷ DEIR, pp. 4.10-8, 4.2-10.

²⁴⁸ DEIR, p. 4.2-10 – 4.2-11.

²⁴⁹ DEIR, p. 4.10-10.

²⁵⁰ DEIR, pp. 4.9-1, 4.10-10.

²⁵¹ Myers Comments, p. 4.

to implement BMPs until the DEIR evaluates this potential impact based on accurate calculations.

12.58

General Plan policies related to biological impacts include protection of federal and state listed species, conservation and maintenance of critical habitat, and avoidance, minimization, and mitigation of impacts to listed species, critical habitat, and migratory birds, among others.²⁵² As explained in this comment letter, the DEIR falls short in its analysis on biological resources impacts, and it is clear that those impacts are significant and not adequately mitigated. The Project will cause unmitigated harm to several federal and state-listed species and will impact critical habitat; therefore it is not consistent with the General Plan policies intended to protect those resources.

12.59

The General Plan requires that all developments “implement applicable Monterey Bay Unified Air Pollution Control District control measures” and that all projects “incorporate feasible measures that assure that health-based standards for diesel particulate emissions are met” and do not exceed construction-related PM10 and NOx emissions thresholds.²⁵³ The DEIR concludes that because the Project is implementing “all feasible mitigation measures,” the Project is consistent with the General Plan.²⁵⁴ However, as Mr. Hagemann and Mr. Sutherland found in their review of the DEIR, there are several additional measures that the Project could incorporate to address significant air quality impacts, including clear exceedances of the PM10 and NOx thresholds.²⁵⁵ In addition, in Mr. Hagemann and Mr. Sutherland’s opinions, the DEIR is severely lacking in its DPM assessment and does not assure health-based standards are met, in violation of the General Plan.²⁵⁶

12.60

²⁵² DEIR, p. 4.10-11 – 4.10-14.

²⁵³ DEIR, p. 4.10-17.

²⁵⁴ *Id.*

²⁵⁵ *See* Hagemann Comments.

²⁵⁶ *Id.*

VIII. CONCLUSION

For all of the reasons discussed above, the DEIR for the Project is wholly inadequate under CEQA. It must be thoroughly revised to include an adequate description of the Project and environmental baseline and provide analysis of, and mitigation for, all of the Project’s impacts. This revision will necessarily require that the DEIR be recirculated for public review. Until the DEIR has been revised and recirculated, the County may not lawfully approve the Project.

12.61

Sincerely,



Laura E. Horton

LEH:clv

| Attachments | |
|--------------------|---|
| Attachment A | Comments and Attachments, Scott Cashen |
| Attachment B | Comments and Attachments, SWAPE Consulting |
| Attachment C | Comments and Attachments, Tom Myers |
| Attachment C | Comments and Attachments, Tom Myers |
| Attachment D | Study: Avian Mortalities at Solar Energy Facilities |

ATTACHMENT A

September 22, 2014

Ms. Laura E. Horton
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080

Subject: Comments on the Draft Environmental Impact Report Prepared for the California Flats Solar Project

Dear Ms. Horton:

This letter contains my comments on the Draft Environmental Impact Report (“DEIR”) prepared for the California Flats Solar Project (“Project”) by Monterey County (“County”). California Flats Solar, LLC (“Applicant”) proposes to construct, operate, maintain, and decommission a 280-megawatt photovoltaic solar generating facility in an unincorporated portion of southeastern Monterey County. The total Project area encompasses approximately 3,000 acres, and would be comprised of the solar generating facility area, a utility corridor, and improvements to an existing access road.

I prepared these comments with assistance from Dr. Michael Morrison and Dr. Vernon Bleich. I am an environmental biologist with 21 years of professional experience in wildlife ecology and natural resource management. Dr. Morrison is a professor and Caesar Kleberg Chair in Wildlife Ecology and Conservation at Texas A&M University, and he has published numerous books and peer-reviewed papers pertaining to wildlife ecology and study design. Dr. Vernon Bleich is a recognized expert on mammal ecology and he is a former senior environmental scientist with the California Department of Fish and Wildlife. All three of us have served as biological resources experts for many development projects in California and other states. Our experience and scope of work in this regard has included assisting various clients with evaluations of biological resource issues, reviewing environmental compliance documents prepared pursuant to the California Environmental Quality Act (“CEQA”) and the National Environmental Policy Act (“NEPA”), and submitting written comments in response to CEQA and NEPA documents. True and correct copies of our curricula vitae are attached hereto.

12.A.1

The comments herein are based on our review of the environmental documents prepared for the Project, a review of scientific literature pertaining to biological resources known to occur in the Project area, consultations with other biological resource experts, and the knowledge and experience we have acquired during decades of work in the field of natural resources management.

EXISTING SETTING ISSUES

The DEIR Fails to Disclose and Analyze All Pertinent Survey Data

The Biotic Report that was prepared by the Applicant’s consultant references several ongoing survey efforts. Specifically, it states: “[t]o assist the Project proponent with its CESA and FESA permitting efforts, the Project proponent will complete a wildlife corridor analysis and conduct the following additional surveys in 2013:

- Focused special-status mammal trapping surveys (underway)
- Dry-season listed branchiopod surveys (underway, samples in analysis)
- Winter bird surveys
- Avian activity surveys (underway)
- Wildlife corridor analysis
- Scent dog surveys for kit fox
- Additional spotlighting surveys”¹

12.A.2

The DEIR includes a report for the dry-season listed branchiopod surveys. However, none of the other survey reports were included with the DEIR. Data from the aforementioned surveys are required to fully assess existing conditions, analyze Project impacts, and formulate appropriate mitigation. Deferring the survey results until after completion of the CEQA review process prevents full disclosure of Project impacts. This precludes the public, resource agencies, and scientific community from being able to submit informed comments pertaining to Project impacts, and from having those comments vetted during the environmental review process. The DEIR cannot be considered a robust and comprehensive analysis of biological resources until the surveys have been adequately conducted, documented, and vetted by the public and resource agencies.

The DEIR Fails to Disclose, Analyze, and Mitigate Potentially Significant Impacts to All Special-Status Wildlife Species

The information and analyses provided in the DEIR are limited to a subset of the special-status animals that occur, or have the potential to occur, in the Project area.² According to the California Department of Fish and Wildlife (“CDFW”):³

“Special Animals” is a general term that refers to all of the taxa the CNDDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of “species at risk” or “special status species”. The

12.A.3

¹ DEIR, Appendix E1, p. 17.

² DEIR, p. 4.4-40 and Table 4.4-4.

³ Prior to 2013 the California Department of Fish and Wildlife was called the California Department of Fish and Game. The State’s list of Special Animals was updated in September 2014. However, reference is made to the 2011 list, which the list that was available when the DEIR was prepared.

Department of Fish and Game considers the taxa on this list to be those of greatest conservation need...The species on this list generally fall into one or more of the following categories:...**Taxa designated as a special status, sensitive, or declining species by other state or federal agencies, or non-governmental organization (NGO).**"⁴

The DEIR is deficient because it ignores several of the species on CDFW's *Special Animals* list, especially "taxa designated as a special status, sensitive, or declining species by other state or federal agencies, or NGO." Several of those taxa were detected during surveys of the Project site and Biological Study Area ("BSA"). They include, but are not limited to: Cooper's hawk, ferruginous hawk, horned lark, prairie falcon, Lewis's woodpecker, yellow-billed magpie, and Lawrence's goldfinch.⁵

12.A.3

Botanical Resources

Rare Plant Surveys

The state of California is in the midst of an exceptional drought, which has affected germination and abundance of native and naturalized plant species. The Biotic Report states that full protocol surveys were not conducted in 2012 "due to low rainfall received by the site during the 2011-2012 rain year."⁶ The site received just over 7 inches of rain, which is only 59% of the long-term average. The Biotic Report goes on to state that: "[a]s of May 2013, the site has received approximately 7 inches of rain during the current 2012-2013 rain year." The *Special Status Plant Pre-construction Survey* report includes a graph that shows the 2011-2012 rain year as totaling 10.27 inches in Parkfield, California. This same graph shows the 2012-2013 rainfall totals as 6.31 inches, almost four inches below the previous year (2012) when surveys were skipped due to low rainfall. Local experts John Chestnut⁷ (Professional Botanist), George Butterworth⁸ (Carrizo Plain and Chimineas Ranch Expert), and Dr. David Keil⁹ (Emeritus Professor at CalPoly San Luis Obispo) confirmed that germination rates and abundance of native plants in the region during 2013 were very low based on their personal observations. Although some rare plants were recorded within the BSA in 2013, more might have been recorded had surveys been conducted in a year with average rainfall. Given that surveys were conducted in such a poor rainfall year, results should be considered inconclusive and the BSA resurveyed.

12.A.4

There were also negative results during reference population checks for species that have a potential to occur on the Project site.¹⁰ Reference population surveys are important

⁴ California Department of Fish and Game. 2011. *Special Animals* (898 taxa). Department of Fish and Game, Biogeographic Data Division, Sacramento (CA). 60 pp.

⁵ DEIR, Table 4.4-4 and Appendix C to Appendix E1.

⁶ *Ibid.*, p. 14.

⁷ Personal communication with Heath Bartosh September 18, 2014.

⁸ *Ibid.*

⁹ *Ibid.*

¹⁰ H.T. Harvey & Associates. 2014b. California Flats Solar Project, Monterey and San Luis Obispo Counties, CA, 2013 Special Status Plant Pre-Construction and Project Vicinity Survey Report.

(especially for annual plant species) in determining if a plant germinated and flowered in a given year as well as determining survey timing. The following is a list of target plant species that Project botanists could not locate during visits to reference populations, and that therefore could not have been successfully located during the 2013 surveys:

- oval-leaved snapdragon (*Antirrhinum ovatum*) - Richard Burgess (Ventura County botanist) has been surveying for this species annually since 1994 at known locations in Ventura County and he did not detect the species until 2014.¹¹ The species description for this species states that it is only abundant every 20-50 years.¹²
- La Panza mariposa lily (*Calochortus simulans*) - Dr. Keil did not see this species in 2013 where it is frequent in good years.¹³
- Lemmon's jewel-flower (*Caulanthus lemmonii*) - most locations known by Mr. Chestnut and Mr. Butterworth did not germinate in 2013.¹⁴
- Rattan's cryptantha (*Cryptantha rattanii*) - reference populations not located by Project botanists, therefore it is unknown if this species even germinated in 2013.
- Cottony buckwheat (*Eriogonum gossypinum*) - Mr. Butterworth located this species in the fall of 2013.¹⁵ The timing of the Applicant's surveys may have been too early for this taxon.
- diamond-petaled poppy (*Eschscholzia rhombipetala*) - Not observed by Mr. Chestnut in 2013 at the Chesterfield Road and Belmont Trail reference sites.¹⁶
- trumpet-throated gilia (*Gilia tenuiflora* subsp. *amplifaucalis*) - reference populations not located by Project botanists, therefore it is unknown if this species even germinated in 2013.
- Panoche pepper-grass (*Lepidium jaredii* subsp. *album*) - Dr. Keil did not see this species during a March 2013 visit to the Carrizo Plains.¹⁷
- Jared's pepper-grass (*Lepidium jaredii* subsp. *jaredii*) - Mr. Chestnut reported this species did not germinate at the south end of Soda Lake or at Panorama Road reference sites in 2013.¹⁸
- San Joaquin woollythreads (*Monolopia congonii*) - Mr. Chestnut observed no germination at the Center Well Pasture site in 2013. Though observed by Project botanists, it was not a favorable year to survey for this species.

12.A.4

¹⁰ *Ibid*, p. 14.

¹¹ Personal communication with Heath Bartosh September 17, 2014.

¹² Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken, editors. 2012. *The Jepson manual: vascular plants of California, second edition*. University of California Press, Berkeley.

¹³ Personal communication with Heath Bartosh September 18, 2014.

¹⁴ *Ibid*.

¹⁵ *Ibid*.

¹⁶ *Ibid*.

¹⁷ *Ibid*.

¹⁸ *Ibid*.

- Mason's neststraw (*Stylocline masonii*) - No reference population checked by Project botanists. Dr. Keil did not observe this plant at the Shell Creek reference site in 2013.¹⁹

This information demonstrates the consultant's surveys were conducted when 20% of the species on its target list were not evident and/or identifiable (i.e., 10 out of 50).²⁰ To accurately establish existing condition, assess all potentially significant impacts, and formulate appropriate mitigation, the Project area needs to be resurveyed when the aforementioned plants are evident and identifiable.

12.A.4

The DEIR inaccurately states that Mason's neststraw (*Stylocline masonii*) has no potential of occurring within the BSA.²¹ This statement conflicts with the Biotic Report Addendum, which indicates the species could occur within the Project's utility corridor.²² The DEIR and appendices do not indicate whether protocol-level surveys were conducted for this taxon during a time when it would have been evident and identifiable.

12.A.5

The DEIR and appendices identify several of the target annual plant species as being "absent" from the survey areas.²³ This is misleading and improper. It is virtually impossible to prove a species' absence, especially within a survey area that encompassed either 4,361 acres (as reported in Table 4) or over 4,800 acres (as reported on p.31).²⁴ This is especially true for annual plant species, which may have seed banks present in the soil, but the seeds do not germinate in a given year (e.g., due to drought).

12.A.6

A review of the survey dates and survey personnel allows for an assessment of the level of survey effort and whether surveys were floristic in nature.²⁵ It should be noted that almost all of the rare plants observed during these studies were in California Annual Grasslands (2,022 acres) and Wildflower Fields (552 acres), which total 2,574 acres.

- March = 117 person days
- April = 66 person days
- May = 9 person days
- June = 8 person days
- July = 3 person days

12.A.7

This information clearly illustrates the fact that surveys were conducted during very few days in June and July. This paucity of dates is insufficient to sample special-status plants occurring during the latter part of the season, especially to conclude "absence" throughout at least 4,361 acres. Furthermore, it is likely insufficient to cover even the

¹⁹ *Ibid.*

²⁰ DEIR, Appendix E6, p. 27.

²¹ DEIR, p. 4.4-41.

²² DEIR, Appendix E13, p. 7.

²³ DEIR, Table 4.4-4.

²⁴ DEIR, Appendix E6, p. 31.

²⁵ DEIR, Appendix B to Appendix E1.

2,574 acres of grasslands and wildflower fields. This is important because some of the plant species on the consultant's target list reach peak flower in the months of June, July, and October and therefore may not have been sufficiently surveyed for.²⁶ For example, the data for a reference population of western lessingia (*Benitoa occidentalis*) CRPR 4.3 indicates that on June 24, 2014, plants observed were only in early flower.²⁷ The following month, when western lessingia would have been farther along in flowering phenology, the Applicant's survey effort was limited to 16.5 man-hours.²⁸

A lack of sufficient late season surveys are also indicated by an absence of positive identifications for certain late blooming species on the list of plants detected during the Applicant's surveys.²⁹ This is reflected by a plant with a genus name listed followed by the suffix "sp." (i.e., unknown species) or parentheses which indicates "uncertainty in the identification of a specimen located on the project site due to a lack of floral characteristics required for accurate identification (often due to early phenology during the site visit)."³⁰ These unidentified species bloom in June, July, August, and September.³¹

12.A.7

The aforementioned issues are confounded because the Applicant's survey report lacks details regarding the number of personnel hours spent checking reference sites and conducting the regional contextual surveys—which reportedly occurred on the same days, and by the same individuals responsible for the protocol-level surveys of the BSA.³² As a result, the DEIR and appendices falsely inflate the amount of time dedicated to Project-specific surveys.

A new tarplant species Diablo Range hare-leaf (*Lagophylla diabolensis*) was published in 2013 and added to the CNPS Inventory in January of 2014 as a CRPR 1B.2 species.^{33,34} Because this taxon was published after the conclusion of the Project surveys it was not a target of the survey effort. *Lagophylla diabolensis* is known to occur in the vicinity of the Project site, and the Project site provides suitable habitat for the species.³⁵ In addition, *L.*

12.A.8

²⁶ Consortium of California Herbaria. 2014. Data provided by the participants of the Consortium of California Herbaria (ucjeps.berkeley.edu/consortium/).

²⁷ DEIR, Appendix E6. See also California Native Plant Society (CNPS). 2014. *Inventory of Rare and Endangered Plants* (online edition). California Native Plant Society. Sacramento, CA. Accessed from <http://rareplants.cnps.org/>

²⁸ DEIR, Appendix B to Appendix E1.

²⁹ DEIR, Appendix A to Appendices E1 and E6.

³⁰ DEIR, Appendix A to Appendices E1 and E6.

³¹ Consortium of California Herbaria. 2014. Data provided by the participants of the Consortium of California Herbaria (ucjeps.berkeley.edu/consortium/).

³² *Ibid* and Appendix E6, Tables 4, 6 and 7.

³³ Baldwin, Bruce. 2013. *Lagophylla diabolensis* (Compositae-Madiinae), a New Hare-Leaf from the Southern Diablo Range, California. *Madrono*: Vol. 60, No. 3, pp. 249-254. California Botanical Society, University of California, Berkeley, CA.

³⁴ California Native Plant Society (CNPS). 2014. *Inventory of Rare and Endangered Plants* (online edition). California Native Plant Society. Sacramento, CA. Accessed from <http://rareplants.cnps.org/>

³⁵ California Natural Diversity Database (CNDDDB). 2014. RareFind 5 [Internet]. California Department of Fish and Wildlife [2014 September 2].

diabolensis is closely related to, and difficult to distinguish from to *L. ramosissima*, which is listed as one of the plants detected within the BSA.³⁶ Focused surveys for *L. diabolensis* should be conducted prior to Project development.

12.A.8

The Applicant’s plant list also includes plant species that were not identified to the level necessary to determine rarity. One of these plants is identified as *Isocoma (menziesii)*. This taxon has a variety, var. *diabolica*, which has a rare plant rank of 4.2. It is possible that this unidentified *Isocoma* is a rare species. Another plant on the list is identified as *Delphinium (gypsophilum)*. A subspecies of this taxon, subsp. *parviflorum*, was included on the consultant’s target list of rare plants that have the potential to occur on the Project site. These two species should be positively identified to determine if additional rare plants occur in the Project area.

12.A.9

Biotic Habitat Types

In reviewing the DEIR and appendices it became evident that vegetation types were not sufficiently evaluated to determine their conservation status as sensitive natural communities.³⁷ Particularly, wildflower fields were described using Holland types;³⁸ however, they should have been characterized using current vegetation survey protocols³⁹ in order to determine specific vegetation alliances⁴⁰ and associations.⁴¹ Describing vegetation types using this protocol better characterizes species composition more accurately ensuring that mitigation is “in-kind.” The long-term persistence of wildflower fields and their related vegetation associations rely on specific pollinator guilds, which have an affect on fecundity of plant species and communities as a whole. As a result, in-kind mitigation needs to take into account specific wildflower field associations and pollinator guilds. Additionally, there may be certain native grassland alliances and associations within areas designated as wildflower fields that have a higher conservation status.

12.A.10

The description for Riparian Oak Woodland in the Biotic Report states that this community is dominated by valley oak (*Quercus lobata*). The membership rules⁴² indicate that if valley oak is greater than 30 percent relative cover when other tree species are present then it qualifies as Valley Oak Woodland. Valley Oak Woodland is

12.A.11

³⁶ DEIR, Appendix E1, p. A-2.

³⁷ California Department of Fish and Game. 2010. *List of Vegetation Alliances and Associations*. Vegetation Classification and Mapping Program, California Department of Fish and Game. Sacramento, CA. September.

³⁸ Holland, R. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*. California Department of Fish and Game, The Resources Agency. 156 pp.

³⁹ California Native Plant Society. 2014. California Native Plant Society/Department of Fish and Game Protocol for Combined Vegetation Rapid Assessment and Relevé Sampling Field Form.

⁴⁰ A classification unit of vegetation, containing one or more associations and defined by one or more diagnostic species, often of high cover, in the uppermost layer or the layer with the highest canopy cover.

⁴¹ A vegetation classification unit defined by a diagnostic species, a characteristic range of species composition, physiognomy, and distinctive habitat conditions.

⁴² Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation*. Second edition. California Native Plant Society, Sacramento. 1300 pp.

considered a sensitive natural community⁴³ as it has a Subnational Conservation Status Rank of S3.⁴⁴ A rank of S3 indicates a vegetation alliance or association is “Vulnerable,” meaning it is at moderate risk of extinction or elimination due to a restricted range, relatively few populations, recent and widespread declines, or other factors. The DEIR and associated appendices failed to accurately describe the vegetative cover of valley oak within this vegetation type, and therefore allow an independent assessment of whether the membership rule was met (and thus an additional sensitive natural community is present in the Project area).

12.A.11

Four other vegetation types that occur in the Project area are considered sensitive natural communities. These four vegetation types are: Willow-Cottonwood Riparian Woodland (*Populus fremontii-Salix laevigata*), alkali heath (*Frankenia salina*), chairmakers's bulrush (*Scirpus americanus*), and purple needlegrass (*Stipa pulchra*). These associations have Subnational Conservation Status Ranks of S3 and are therefore considered sensitive.⁴⁵ The DEIR and associated appendices failed to disclose, analyze, or mitigate potentially significant impacts to these sensitive natural communities.

Yerba mansa (*Anemopsis californica*) is also identified as being dominant in perennial marsh habitats. This alliance has a Conservation Status Rank of S2.⁴⁶ A rank of S2 indicates a vegetation alliance or association is “Imperiled” because of rarity due to very restricted range, very few populations, steep declines, or other factors making it very vulnerable to extirpation.⁴⁷ Serpentine bunchgrass grassland also has a ranking of S2.⁴⁸

Golden Eagle

Golden eagles are protected under Fish and Game Code Section 3511 and the federal Bald and Golden Eagle Protection Act (“Eagle Act”). California law prohibits take of golden eagles, and the USFWS requires a permit to be issued for take of bald or golden eagles where the taking is associated with, but not the purpose of the activity, and cannot be practicably avoided. Take includes: (1) injury to an eagle; (2) causing a decrease in golden eagle productivity by substantially interfering with normal breeding, feeding, or sheltering behavior; or (3) nest abandonment by substantially interfering with normal

12.A.12

⁴³ California Department of Fish and Game. 2010. *List of Vegetation Alliances and Associations*. Vegetation Classification and Mapping Program, California Department of Fish and Game. Sacramento, CA. September.

⁴⁴ NatureServe. 2013. Interpreting NatureServe Conservation Status Ranks. NatureServe Explorer [Online] and NatureServe Central Databases, Arlington, VA. Available: <http://www.natureserve.org/explorer/>.

⁴⁵ California Department of Fish and Game. 2010. *List of Vegetation Alliances and Associations*. Vegetation Classification and Mapping Program, California Department of Fish and Game. Sacramento, CA. September.

⁴⁶ *Ibid.*

⁴⁷ NatureServe. 2013. Interpreting NatureServe Conservation Status Ranks. NatureServe Explorer [Online] and NatureServe Central Databases, Arlington, VA. Available: <http://www.natureserve.org/explorer/>.

⁴⁸ *Ibid.* See also DEIR, p. 4.4-30.

breeding, feeding, or sheltering behavior.⁴⁹

The Project site provides nesting and foraging habitat for golden eagles. In 2013, one occupied nesting territory was known to be within the Project site and one active nest was located along the southwestern edge of the BSA.⁵⁰ In addition, there were several other occupied territories within 2 miles, and a total of 23 confirmed or suspected nesting territories within 10 miles of the project site (of which at least 13 were active in 2013). These relatively high numbers convey the value of the Project area to golden eagles.

The DEIR provides the following conclusion pertaining to Project impacts to golden eagles:

1. “Project development would permanently affect up to 2,188 acres of golden eagle foraging habitat within the project site... This could potentially result in reduced reproductive output and success, increased competition between territories, or abandonment of territories or nests if available foraging habitat in the region proved limiting.”⁵¹
2. “Other construction-related disturbances could result, including activities and noise associated with earth moving, grading, vegetation removal, and installation of Project infrastructure. These disturbances may alter foraging behavior of golden eagles nesting near the site, which could lead to reduced productivity and nestling survival.”⁵²
3. “Also, the increased traffic may disrupt eagle foraging and movement at the project site, again potentially reducing eagle productivity and survival.”⁵³

12.A.12

Each of these impacts would constitute a take, as defined by the Eagle Act. As a result, the Project will require an incidental take permit from the USFWS. Take of an eagle without a permit is a violation of Eagle Act, and could result in prosecution—especially if project proponents willingly operate a project that they know may cause take.

The DEIR fails to assess the Project’s compliance with the Eagle Act, or establish a mechanism that ensures the Applicant consults with the USFWS regarding the need for an eagle take permit. As a result, the Project would have a significant and unmitigated impact to golden eagles.

Swainson’s Hawk

The Swainson’s hawk is a state listed threatened species. In California, the breeding population of Swainson’s hawks has decreased by an estimated 91% since the late

12.A.13

⁴⁹ 50 CFR 22.3. *See also* U.S. Fish and Wildlife Service. 2009. Final Environmental Assessment: Proposal to Permit Take as Provided Under the Bald and Golden Eagle Protection Act. U.S. Fish and Wildlife Service, Washington, D.C. Table 1.

⁵⁰ DEIR, Table 4.4-4.

⁵¹ DEIR, p. 4.4-98.

⁵² DEIR, p. 4.4-98.

⁵³ *Ibid*, p. 4.4-99.

1800s.⁵⁴ This dramatic population decline has been attributed primarily to the loss of suitable nesting and foraging habitat.⁵⁵

According to the DEIR:

Currently, Swainson’s hawk, white-tailed kite, and northern harrier are not known to nest on the Solar Generating Facility Area or in the Access Road. Although the project site contains suitable foraging habitat for these species, none have been detected nesting or foraging on the project site. If any of the species occur on the site, it would be infrequently.

12.A.13

These statements are misleading because the Applicant did not conduct protocol-level surveys for Swainson’s hawk nest sites, which can be very difficult to locate.⁵⁶ The CDFW sent a letter to the County indicating the need for protocol-level surveys in the Project area.⁵⁷ Indeed, the Biotic Report recognized the existence of CDFW promulgated standards for locating nest sites, and it acknowledged surveys adhering to those standards have not been conducted for the Project.⁵⁸ Nevertheless, the DEIR does not require Swainson’s hawk surveys prior to Project construction. This has direct implications on the Project’s ability to meet the “full mitigation” standard required under the California Endangered Species Act (“CESA”). As a result, Project impacts to the Swainson’s hawk remain potentially significant and unmitigated.

Mountain Plover

The DEIR states that in regards to the mountain plover “there are no CNDDDB records for mountain plover within 20 miles of the BSA, but small flocks have been reported in the Cholame Valley as close as four miles south of the project site.”⁵⁹ Additionally, “most observations have been in agricultural lands 10 to 15 miles east of the BSA. No mountain plovers have been observed within the BSA, but suitable foraging habitat is present.” However, the mountain plover is indicted to occur on the 1-mile radius line on the southern side of the Project area, as documented in Fig. 4.4-6 (CNDDDB records) of the DEIR.

12.A.14

Northern Harrier

In regards to the northern harrier, the DEIR concludes “there are no CNDDDB records of northern harriers within 20 miles of the BSA, but they have been observed foraging within the project site. Due to ongoing grazing activities, the project site and Access

12.A.15

⁵⁴ California Department of Fish and Game. 1994. Staff report regarding mitigation for impacts to Swainson’s hawks (*Buteo swainsoni*) in the Central Valley of California [internet]. Available at: http://www.madera-county.com/rma/archives/uploads/1188143775_Document_upload_23w.pdf.

⁵⁵ *Ibid.*

⁵⁶ CDFG. 2000 May 31. Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley. Swainson’s Hawk Technical Advisory Committee.

⁵⁷ DEIR, Appendix A.

⁵⁸ DEIR, Appendix E1, pp. 90 and 91.

⁵⁹ DEIR, p. 4.4-74.

Road provide suitable foraging habitat, but suitable nesting habitat is absent.”⁶⁰ However, the Applicant’s consultant did not conduct surveys for northern harrier nests on and around the Project area, nor where nest searches conducted for any other species except the golden eagle. According to the Biotic Report, harriers are known to nest in Cholame Valley.⁶¹

12.A.15

California Tiger Salamander (CTS)

The DEIR reports: “No adult or larval CTS were found within the BSA despite multiple survey efforts; therefore, based on surveys that have been conducted, the species is unlikely to occur on the site.”⁶² According to the Project survey report, a general reconnaissance-level survey was conducted in 2011 to identify potential habitat and only 17 of 42 ponds were surveyed in 2013 for CTS with six of the 17 ponds dry at the time of the first survey.⁶³ And according to the DEIR – “One potentially suitable pond is located approximately 100 feet from the Utility Corridor study area but was not included in the 2013 surveys because the Utility Corridor was added after the protocol survey period had come to an end.”⁶⁴ Only one breeding season was sampled during drought conditions at the project site.⁶⁵ Based on available information, it appears that the Project area and biological assessment area were not adequately surveyed in terms of both space and time—not all suitable breeding sites were surveyed and they were only surveyed during drought conditions. As a result, definitive statements made in the DEIR about baseline conditions for CTS occurrence or habitat suitability in the Project area are not supported.

12.A.16

According to USFWS and California Department of Fish and Game (2003) guidelines: “Biological field surveys should be conducted for all sites with potential CTS habitat.”⁶⁶ Due to its unique life history, the CTS can be difficult to detect depending on weather and time of year. Aquatic sampling for larvae during spring months can be the most effective way to determine if CTS are present in a given area. However, especially if environmental conditions are unfavorable, CTS may not breed successfully in a given year.”

The guidelines go on to say ... “In years with little rainfall, upland emergence may be reduced and CTS may not breed. Field surveys conducted in years with at least 70% of average rainfall between September 1 and April 1, at the nearest National Oceanic and

⁶⁰ DEIR, p. 4.4-74.

⁶¹ DEIR, Appendix E1, p. 97.

⁶² Project EIR, section 4.4, pg. 106

⁶³ Project EIR, Appendix E.7, Aquatic Larval Surveys: California Tiger Salamander, California Red-legged Frog, pg. I, *See also* Biotic Report, Appendix E.1, pg. 7

⁶⁴ Project EIR, section 4.4, pg106

⁶⁵ Project EIR, Appendix E.7, *Aquatic Larval Surveys: California Tiger Salamander, California Red-legged Frog*. *See also* U.S. Department of Commerce, Annual Climatological Summary (2013), National Climatic Data Center National Oceanic & Atmospheric Administration (<http://www.ncdc.noaa.gov/cdo-web/>)

⁶⁶ USFWS and California Department of Fish and Game (2003) *Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander*, pg. 3, (http://www.fws.gov/ventura/docs/species/protocols/cts/catigersalamander_survey-protocols.pdf)

Atmospheric Administration climate station are most reliable. Data from survey seasons not meeting this criterion will also be considered; surveyors should provide strong justification that their data are reliable including but not limited to local climate (e.g., daily rainfall totals, pond filling date, pond drying date) and biological survey data (e.g., other species captured during each sampling interval).”

In reference to vernal pools and brachiopods, the DEIR states that “Wet-season protocol surveys were conducted within the BSA during the 2012/2013 winter rainy season. Nine seasonal wetlands were sampled and no listed brachiopods were detected; however, the area received approximately 50% of the average precipitation recorded for the region containing the BSA.”⁶⁷ and, “... rainfall totals during the 2011-2012 rain year were less than 60% of average, and during the 2012-2013 rain year were again lower than average, and areas providing suitable habitat for these species may not have ponded long enough for the species to be detected, even if they were present.”⁶⁸

California Tiger Salamander surveys would need to be conducted during normal precipitation years per survey protocol in order to make a supported determination on the likelihood of CTS occurrence. In addition, the “unlikely to occur on the project site” statement contradicts conclusions made in Table 4.4-4 of the DEIR about the potential occurrence of the species within the Project area (and likely confuse the reader of the document); the authors state - “Possible. Suitable upland habitat present on the project site. Four potential breeding ponds are located within 1.3 miles to the north and west of the project site. A neighboring landowner provided a photo of an apparent CTS taken at a pond located 1.8 miles from the project site. Although the photo appears to be of a CTS, the specimen was not field verified by a biologist and the photo was not taken during the course of a protocol-level survey or survey conducted by a biologist.” The facts that the specimen was not field-verified by a biologist, and that the photo was not taken during the course of a protocol-level survey or survey conducted by a biologist, are entirely irrelevant to the contents of the photo. If the Applicant’s consultants doubted the validity of the photo they could have asked the landowner for permission to conduct protocol-level surveys at the pond where the picture was taken.

12.A.16

The California Tiger Salamander sometimes migrates up to 2 km between breeding ponds and terrestrial habitat (see USFWS 2004) and according to Austin and Shaffer (1992), juveniles have been observed to migrate up to 1.6 km from breeding ponds to estivation areas.⁶⁹ Based on this literature, the Project area is within the range of mobility capabilities of the species from known detection sites. Again, based on these facts, the County’s determination that species occurrence in the Project area is “unlikely” is not

⁶⁷ Project EIR, Section 4.4, pg. 76.

⁶⁸ Project EIR, Section 4.4, pg. 117.

⁶⁹ U.S. Fish and Wildlife Service (USFWS). 4 August 2004. Determination of threatened status for the California tiger salamander; and special rule exemption for existing routine ranching activities; final rule. Federal Register 69(149):47212-47248. See also Austin, C. C. and H. B. Shaffer 1992. Short, medium, and long-term repeatability of locomotor performance in the tiger salamander, *Ambystoma californiense*. Functional Ecology 6(2):145-153.

supported, especially when viewed in the context of habitat suitability over time (> 1 year and during normal precipitation years).

12.A.16

California Red-legged Frog (CRF or CRLF)

According to project documents – “On 16 August 2012, H. T. Harvey & Associates herpetologists Jeff Wilkinson and Kirk Setser conducted a single CRF survey of the Project site. They observed CRF in Cottonwood Creek and in one other drainage (Drainage 2) on the Project site.”⁷⁰ Project documents go on to say that “Carpenter and Wilkinson conducted three CRF larval surveys: on 19–21 March, 29 and 30 April, and 14 May 2013.”⁷¹ Based on this description of the survey effort, the survey team appears to not have sampled the project and biological assessment area according to the USFWS protocol, which states: “This Guidance recommends a total of up to eight (8) surveys to determine the presence of CRF at or near a project site. Two (2) day surveys and four (4) night surveys are recommended during the breeding season; one (1) day and one (1) night survey is recommended during the non-breeding season. Each survey must take place at least seven (7) days apart. At least one survey must be conducted prior to August 15th. The survey period must be over a minimum period of 6 weeks (i.e., the time between the first and last survey must be at least 6 weeks). Throughout the species’ range, the non-breeding season is defined as between July 1 and September 30.”⁷² Based the Project documents only 3 surveys were conducted and no night surveys were conducted. Additionally, the CRF surveys were completed during suboptimal drought conditions.⁷³ As a result, the full extent of CRF occurrence across the Project and biological assessment area was likely under represented and could result in unmitigated impacts to the species.

12.A.17

Western Pond Turtle

According to the project DEIR’s “Biotic Report”, protocol surveys for pond turtles were not conducted, even though established protocols for their detection exist.⁷⁴ Instead, the detection of this species (along with other amphibian and reptile species) was based on casual observations while conducting CRF, CTS or other reconnaissance-level surveys. As a result, the DEIR fails to establish the abundance and distribution of western pond turtles in the Project area. This precludes the public, natural resource agencies, and County from being able to assess the relative severity of Project impacts to the species. For example, few viable populations of pond turtles remain in the San Joaquin Valley, or

12.A.18

⁷⁰ Project EIR, Appendix E.7, *Aquatic Larval Surveys: California Tiger Salamander, California Red-legged Frog*, pg. 1

⁷¹ Project EIR, Appendix E.7, *Aquatic Larval Surveys: California Tiger Salamander, California Red-legged Frog*, pg. 6

⁷² USFWS (2005), *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog*, pg. 6

⁷³ Annual Climatological Summary (2013), National Climatic Data Center National Oceanic & Atmospheric Administration (<http://www.ncdc.noaa.gov/cdo-web/>)

⁷⁴ Appendix E.1, Section 2.5. *See also* U. S. Geological Survey. 2006. USGS western pond turtle (*Emys marmorata*) visual survey protocol for the southcoast ecoregion. U. S. Geological Survey protocol. San Diego, CA. 56 pp.

Salinas and Pajaro drainages (including tributaries).⁷⁵ The Project site appears to have a viable population of pond turtles.⁷⁶ Loss of that population due to habitat loss and fragmentation caused by the Project would have relatively severe consequences on conservation of the species.

12.A.18

San Joaquin Kit Fox

Surveys for special-status mammal species are inadequately documented in the DEIR. Figure 4.4-6 indicates known records of the San Joaquin kit fox, showing frequent occurrence to the south and east of the project area. In Table 4.4-4, which summarizes occurrence information on the kit fox, the DEIR itself acknowledges that the species occurs throughout the region and at least adjacent to the Project area. However, there is no indication in any of the documents if surveys were conducted to the north and west of the Project area.

12.A.19

In discussing the use of the project area as a wildlife movement corridor, page 81 states,

Given the remote location of the project site, the low level of development in the vicinity, the relatively low degree of disturbance on the site and the presence of natural habitats on and adjacent to the project site, it is highly likely that wildlife move freely through the site; however the site is unlikely to serve as a distinct or important movement corridor or habitat linkage for any protected or managed species.

However, no scientific basis is provided for any conclusion made in this section, in particular that the Project area “is unlikely to serve as a distinct or important movement corridor”. Given that the Project area “represents the northern target zone for kit fox connectivity through the Carrizo Plain”, and that the kit fox occurs in and around the Project area, a conservative conclusion would be that: (1) the Project area is included within an established population of the kit fox, and/or (2) the Project area is serving as a frequently used movement corridor.

12.A.20

The issue of population status and movement is further confused by the following statements found on page 181:

Based on an analysis of wildlife corridors conducted by Penrod et al. (2010) the project site does not occur within a kit fox satellite population or within an identified wildlife movement corridor. However, the project site is located within occupied San Joaquin kit fox habitat that lies to the west of a habitat linkage between the Western Kern core population and the Salinas Valley satellite population, a linkage identified as essential to the recovery of the San Joaquin kit fox according to the Recovery Plan...

⁷⁵ Jennings MR, MP Hayes. 1994. Amphibian and reptile species of special concern in California. Rancho Cordova, CA: California Dept. of Fish and Game, Inland Fisheries Division. p. 101. *See also* California Natural Diversity Database (CNDDDB). 2014. RareFind 5 [Internet]. California Department of Fish and Wildlife [2014 September 2].

⁷⁶ DEIR, p. 4.4-76.

It is further stated, when discussing the Recovery Plan that “the project is located within the Palo Prieto/Cholame Valley target area.” And again on page 182, the DEIR concludes that: “the project has the potential to interfere substantially with the movement of San Joaquin kit fox in an important habitat linkage.” The DEIR gives completely contradictory information regarding the presence of, and Project impacts to, this special-status species.

12.A.20

Concerning mitigation activities, the DEIR is once again inconsistent within its own analysis and does not provide an adequate assessment on which to base mitigation activities. Although it is stated that “Mitigation: Implementation of MMs B-1(b, h, i and j) would reduce interference with the movement of San Joaquin kit fox in an important habitat linkage to less-than-significant levels...”, this contradicts the fact and statements that the long-term and cumulative impacts on the kit fox are not known but could be substantial. Thus proposed mitigation measures would be inadequate.

12.A.21

The issue of use of the Project area by the kit fox is further confused by the statement found on page 89, “The BSA and Utility Corridor study area both comprise suitable home range and/or dispersal habitat for San Joaquin kit fox”. If the Project area is a suitable home range, then the Project area is not simply a movement corridor at the northern end of the Carrizo Plain population.

12.A.22

Pages 89-90 summarize information from the California Valley Solar Ranch (“CVSR”) that indicates kit fox will continue to inhabit a solar facility after development. It is also stated, “However, these data do not provide insight regarding the long-term effects of development of the project.” In fact, on pages 91-92 they anticipate that longer-term negative impacts are likely (*italics inserted*).

Although San Joaquin kit fox have potential to occur within the arrays and the interstitial habitats between the arrays and other infrastructure post-construction, habitat values within the project site are likely to change relative to the quality of the currently undeveloped habitat. Cypher et al. (2000) studied kit fox population dynamics in response to the development of oilfields in the southern San Joaquin Valley. They *initially found little effect* on the overall inter-annual variation in kit fox abundance within the developed areas, yet found variable rates of survival between adult and juvenile cohorts. Initially, adult survival rates were higher in the developed areas of the oilfield; however, the survival rates of juveniles were lower. *Over time, however, the capture rates of fox were lower in developed areas relative to undeveloped areas, a phenomenon attributed to degradation of habitat.*

12.A.23

Pages 90-91 list a multitude of negative impacts to the kit fox during construction but especially following full project development, including but not limited to: (1) death and injury by vehicles, (2) poisoning by chemicals, (3) increase in predation due to an altered predator community (including domestic animals), (4) altered prey community, (5) inhibition of movements by fencing, and (6) habitat degradation. As stated on page 91 of the DEIR: “Up to 2,086 acres of potential foraging and denning habitat for San Joaquin kit fox would be permanently altered on the project site.”

San Joaquin Pocket Mouse

A glaring inconsistency in the DEIR is in regards to the San Joaquin pocket mouse, which the DEIR concludes on page 77 is a species that could occur on site, but implies none were located during kangaroo rat focused trapping. However, as detailed on page 95 of section 4.4, as well as on page 115 of Appendix E, adequate trapping was not conducted to determine the presence of special-status species.

Although buried in a lengthy phrase regarding the absence of San Joaquin pocket mice during other biological surveys, the DEIR confirms the presence of the San Joaquin pocket mouse in the Project area. DEIR page 95 states: “[n]o San Joaquin pocket mice were detected during the reconnaissance or full ground coverage mammal surveys and none were captured during 2013 trapping efforts; however, during small mammal trapping efforts on 6 August 2013, a single San Joaquin pocket mouse was observed foraging above ground.”

Although the preparers of the DEIR state that the population is expected to be small based on little friable soil, no specific trapping effort was conducted to determine the distribution of the species in and around the Project area. Even though the DEIR records a sighting, it also states that “the nearest historical records for the species [pocket mouse] are about 14 miles east of the BSA (CNDDDB, 2013).” This is an excellent example of why CNDDDB data are not a substitute for site-specific surveys for all species.

12.A.24

When discussing negative impacts from Project development and operations, the DEIR states that the Project would only “reduce a relatively small amount of habitat that is regionally abundant for this species; consequently, this permanent habitat conversion would not substantially reduce the number of this species or restrict its range.” What the DEIR fails to acknowledge is that if the pocket mice in the Project area represent part of a metapopulation structure, loss of this subpopulation could negatively impact overall species viability and diversity. None of this critical information informed the conclusions written in the DEIR.

Pages 95-96 conclude that few pocket mice likely exist in the Project area, and thus impacts would be minor to the overall species. However, this conclusion is based on speculation and not on a thorough and appropriate (protocol-level) survey of the species. In particular, no estimate of the lost acreage of pocket mouse habitat is made because no thorough surveys of their occurrence were conducted. Moreover, if the population *is* small, impacts to even a few individuals could cause extirpation.

Pronghorn

The past presence and abundance of pronghorn (*Antilocapra americana*) in Monterey County, California have long been established.^{77,78,79,80,81,82} Although they became

12.A.25

⁷⁷ Caton, J. D. 1877. The antelope and deer of America. Forest and Stream Publishing Company, New York, USA.

locally extinct as a result of habitat fragmentation through conversion of native grasslands into agricultural areas, pronghorn were reintroduced, in part to reestablish an historic population but, more broadly, to help restore a native ecosystem.⁸³ Indeed, "The impact of insidious civilization developments appears deleterious to herds experiencing perilously low numbers south of San Francisco. The plight of these wild herds is apparently tied to the perpetuation of native grassland abundant with forbs. There is concern that if pronghorn are to remain a heritage on southern rangelands of the "Golden State," that native grasslands need to be perpetuated in healthy condition – then it may be feasible to perpetuate native pronghorn populations."⁸⁴ Pronghorn were translocated to Monterey County, and other nearby counties in 1990.⁸⁵

12.A.25

The DEIR states: "pronghorn and Tule elk have not been observed with the project site."⁸⁶ This statement appears to conflict with information on the Applicant's website, which states: "A herd of approximately 100 antelope have flourished on the [Jack] ranch, since their original introduction by Fish and Game on neighboring land."⁸⁷ Moreover, pronghorn have been observed within the access road corridor⁸⁸ and reportedly in the southern end of the Project site.⁸⁹

Implementation of the Project would impact pronghorn in several important ways.⁹⁰ Among these are temporary avoidance of construction sites, interference with movement patterns through increased traffic or anthropogenic obstructions (fences and other infrastructure), or both, and the direct impact of habitat no longer being available as a result of Project construction. In addition to the loss of habitat within fenced areas, pronghorn are likely to avoid remaining open areas in the northwest portion of the project

12.A.26

⁷⁸ Grinnell, J. 1933. Review of the recent mammal fauna of California. University of California Publications in Zoology 40:71-234.

⁷⁹ McLean, D. D. 1944. The prong-horned antelope in California. California Fish and Game 30:221-239.

⁸⁰ Gordon, B. L. 1979. Monterey Bay Area: natural history and cultural imprints. Second edition. The Boxwood Press, Pacific Grove, California, USA.

⁸¹ Conway, J. D. 2003. Monterey: presidio, pueblo, and port. Tempus Publishing, Charleston, South Carolina, USA.

⁸² Brown, D. E., J. Cancino, K. B. Clark, M. Smith, and J. Yoakum. 2006. An annotated bibliography of references to historical distributions of pronghorn in southern and Baja California. Bulletin of the Southern California Academy of Sciences 105:1-16.

⁸³ Western Ecological Research Center. 2012. [Internet] Tracking pronghorn antelope in California's Central Valley. Available from: <http://www.werc.usgs.gov/outreach.aspx?RecordID=127>

⁸⁴ Yoakum, J. D., and A. J. Koch. 2009. A review of literature pertaining to pronghorn in California from 1769 to 2009. Transactions of the Western Section of The Wildlife Society 45:21-26.

⁸⁵ California Department of Fish and Game. 2004. [Internet] Final environmental document regarding pronghorn antelope hunting. California Department of Fish and Game, Sacramento, USA. Available from: http://www.fgc.ca.gov/meetings/2014/apr/7_final_ED_Antelope.pdf

⁸⁶ DEIR, p. 4.4-81.

⁸⁷ Access: <<http://www.hearstranch.com/about/>>.

⁸⁸ California Flats Solar Project EIR. Page 4.4-183.

⁸⁹ Penrod, K., et al. 2010. Habitat connectivity planning for selected focal species in the Carrizo Plain. Science and Collaboration for Connected Wildlands, Idyllwild, California, USA.

⁹⁰ California Flats Solar Project EIR. Pages 4.4-183–4.4-184.

site because of their propensity to avoid small areas of even contiguous habitat.⁹¹ The DEIR, however, concludes that pronghorn would continue to use corridors through the eastern portion of the Project site, and that movement through the access road and utility corridor would continue because no areas would be fenced.⁹² Such a conclusion, however, cannot be stated with certainty, as pronghorn are sensitive and avoid areas of substantial disturbance.⁹³ Pronghorn must have suitable expanses of rangelands throughout which they can move to secure their annual life-history needs.⁹⁴ The DEIR is refreshingly honest in its assessment of impacts that will be incurred as a result of Project construction.

12.A.26

It is clear that project implementation will impact opportunities for movement by pronghorn between the Project area (i.e., the Cholame Valley) and the Carrizo Plain.⁹⁵ Moreover, construction along the access road will also interfere with birthing; unfortunately, the DEIR suggests that impacts to movements and degradation of birthing areas, although significant, are mitigable to a less-than-significant level.⁹⁶ I am not convinced that either is the case, and respond with the following as it relates to mitigation:

As indicated in the DEIR, surveys are to be conducted within the birthing area from 1 April to 30 June and, if fawns are detected, a buffer of 400 m (~0.25 mi) shall be established to "... ensure that does and calves [fawns] are not distressed."⁹⁷ The birthing season in an area proximate to the project site (Carrizo Plain, San Luis Obispo County) for a period of 3 years (2009–2011) has been determined to occur within the period between 25 April and 25 May, and during two of the three years, birth synchrony was statistically significant; further, only fawns born within the peak birthing periods survived.⁹⁸ In lieu of the proposed mitigation, a more appropriate mitigation measure to avoid impacts to parturient females and their offspring would be to conduct no construction during a period from 15 April to 30 May, based on field research in an area adjacent to the Project area. Thus, I suggest mitigation measure B4(a) be modified to read: "In order to ensure that does and calves are not distressed, no construction shall occur from 15 April to 30 May."

12.A.27

⁹¹ Berger, J., K. M. Berger, and J. Beckmann. 2006. Wildlife and energy development: pronghorn of the upper Green River Basin—Year 1 Summary. Wildlife Conservation Society, Bronx, New York, USA.

⁹² California Flats Solar Project EIR. Pages 4.4-184.

⁹³ Berger, J., K. M. Berger, and J. Beckmann. 2006. Wildlife and energy development: pronghorn of the upper Green River Basin—Year 1 Summary. Wildlife Conservation Society, Bronx, New York, USA.

⁹⁴ O'Gara, B. W., and J. D. Yoakum. The future. Pages 809-832 in B. W. O'Gara and J. D. Yoakum, editors. Pronghorn ecology and management. University Press of Colorado, Boulder, USA.

⁹⁵ California Flats Solar Project EIR. Pages 4.4-184.

⁹⁶ *Ibid.*

⁹⁷ *Ibid.*

⁹⁸ Johnson, D. R. 2014. Pronghorn (*Antilocapra americana*) offspring recruitment on the Carrizo Plain National Monument: evaluating the effects of low population density and marginal habitat quality. M.S. Thesis, University of Nevada, Las Vegas, USA.

Mitigation measure B4(b) includes the following provisions:

... new pronghorn-friendly fencing shall be installed to improve the movement of pronghorn both on and through mitigation sites where applicable. This requirement shall not apply to existing fencing or fencing installed to preclude cattle from sensitive resources such as restored or protected wetland or riparian habitats. The HMMP (mitigation measure B-1[b]) for these sites shall contain the following requirements: (1) Identification of likely and feasible pronghorn movement pathways on the mitigation sites; (2) Removal of nonessential fencing on the mitigation sites where not in conflict with adjacent land management practices; (3) Incorporation of measures to increase visibility of existing fencing (high-visibility wire, PVC covers, vinyl markers, flagging, etc.), as appropriate; (4) Incorporation of fencing modifications, where not in conflict with adjacent land management practices, such as replacing barbed wire with smooth wire on the lower (and possibly upper wires of the fence), designed to enable movement by pronghorn through the likely and feasible pathways on mitigation sites; (5) Placement of fencing at potential risk areas to encourage movement away from dangerous roads; and (6) A schedule for implementing the above measures and financial assurances to implement the required enhancement.⁹⁹

12.A.28

Most of these stipulations are reasonable and well thought out. Nevertheless, there are flaws in the proposed mitigation. First, there must be some rationale stated to define "the likely and feasible pronghorn movement pathways on the mitigation sites," as noted in (1), above. In other words, simply saying it will be done is not adequate; the justification and methodologies used to determine "... likely and feasible pronghorn movement pathways on the mitigation sites..." must be included. In the absence of such, the reader is left no basis to determine how meaningful such mitigation will (or will not) be. Further, stipulation (3) above needs to be stated without the qualification, "as appropriate." It will be in the best interest of pronghorn and other species to mark all fences with highly visible flagging, wire, or other methods. With respect to stipulation (4), all such fences should be modified to enhance passage by pronghorn. Additionally, mitigation must include raising the bottom wire of the fence to a height that is compatible with the passage of pronghorn, while simultaneously meeting livestock control needs, for the proposed mitigation to be meaningful. The authors of the DEIR are referred to the literature addressing that subject.^{100,101,102} Stipulation (5) must be clarified to indicate that placement of fencing is specifically to preclude access; as currently written, readers can conclude that because it encourages movement away from dangerous roads, it would also allow access to dangerous roads. Further, any such fencing must provide for the potential

⁹⁹ California Flats Solar Project EIR. Pages 4.4-187-4.4-188.

¹⁰⁰ Yoakum, J. D. 1980. Habitat management guidelines for the American pronghorn antelope. U.S. Bureau of Land Management Technical Note 347. U. S. Department of the Interior, Washington, D.C., USA.

¹⁰¹ Yoakum, J. D. 2004. Management plans, environmental impact statements and guides. Pages 541-569 in B. W. O'Gara and J. D. Yoakum, editors. Pronghorn ecology and management. University Press of Colorado, Boulder, USA.

¹⁰² Bleich, V. C., J. G. Kie, T. R. Stephenson, M. W. Oehler, and A. L. Medina. 2012. Managing rangelands for wildlife. Pages 74-94 in N. J. Silvy, editor. The wildlife techniques manual. Seventh edition. Volume 2: Management. Johns Hopkins University Press, Baltimore, Maryland, USA.

passage of pronghorn, which quite possibly would call for the incorporation of "pronghorn passes."^{103,104,105,106}

12.A.28

The DEIR states: "No pronghorn or their sign were detected within the project site, but they have been observed foraging within the Access Road. Pronghorn have also been documented in the Cholame Valley on both sides of the Access Road and within the southern portion of the project site (Penrod et al. 2010).¹⁰⁷ A herd of approximately 40 to 50 pronghorn have been tracked by the CDFW within the Cholame Valley."¹⁰⁸ It further states: "Habitat suitability modeling identified the Cholame Valley as a Target Zone for pronghorn, indicating the area represents a known herd range that should remain connected to the Carrizo Plain herd to the south (Penrod et al. 2010).¹⁰⁹ Areas within the project site and Access Road are considered to be of medium, medium-high, and high suitability values for pronghorn."¹¹⁰ Clearly, the value of the Project site to pronghorn is indisputable.

12.A.29

Mitigation measure B-1(j) is identified as offsetting Project impacts to pronghorn.¹¹¹ However, that measure addresses mitigation specifically for impacts to kit fox (*Vulpes macrotis*), not to pronghorn. While kit fox and pronghorn have overlapping distributions and, at least to some extent, use similar habitats, pronghorn have forage requirements that might not be supported if only the ecology of kit fox is considered when acquiring replacement habitat. Indeed, pronghorn are selective foragers, feeding selectively on forbs and grasses at certain times of the year, but do utilize "coarser" forages when more digestible feed is unavailable.^{112,113} Alternatively, kit fox are opportunistic foragers, and consume a multitude of different foods, including insects, vertebrates (primarily leporids

12.A.30

¹⁰³ Spillett, J. J., J. B. Low, and D. Sill. 1967. Livestock fences—how they influence pronghorn antelope movements. Bulletin 470. Utah Agriculture Experiment Station, Logan, USA.

¹⁰⁴ Mapston, R. D., and R. S. ZoBell. 1967. Antelope passes: their value and use. Technical Note D-360. U.S. Bureau of Land Management, Department of the Interior, Washington, D.C., USA.

¹⁰⁵ Yoakum, J. D., W. P. Dasmann, H. R. Sanderson, C. M. Nixon, and H. S. Crawford. 1980. Habitat improvement techniques. Pages 329–403 in S. D. Schemnitz, editor. Wildlife management techniques manual. The Wildlife Society, Washington, D.C., USA.

¹⁰⁶ Howard, V. J., J. L. Holechek, and R. D. Pieper. 1983. Roswell pronghorn study. New Mexico State University, Las Cruces, USA.

¹⁰⁷ Penrod, K., et al. 2010. Habitat connectivity planning for selected focal species in the Carrizo Plain. Science and Collaboration for Connected Wildlands, Idyllwild, California, USA.

¹⁰⁸ *Ibid.*

¹⁰⁹ *Ibid.*

¹¹⁰ California Flats Solar Project EIR. Pages 4.4-77.

¹¹¹ California Flats Solar Project EIR Page 4.4-188.

¹¹² Byers, J. A. 2003. Pronghorn. Pages 998–1008 in J. A. Feldhamer, B. C. Thompson, and J. A. Chapman. Wild mammals of North America. Biology, management, and conservation. Second edition. Johns Hopkins University Press, Baltimore, Maryland, USA.

¹¹³ Yoakum, J. D. 2004. Foraging ecology, diet studies and nutrient values. Pages 447–502 in B. W. O'Gara and J. D. Yoakum, editors. Pronghorn ecology and management. University Press of Colorado, Boulder, USA.

or rodents), and plant materials.¹¹⁴ Thus, kit foxes are more plastic in their foraging ecology than are pronghorn. As a result, it is imperative that the specific needs of pronghorn be considered simultaneously with those of kit fox, because the implied assumption that 'if it's good for kit fox, it's good for pronghorn' is a specious argument the reader is led, perhaps unwittingly, to accept if mitigation measure B-1(j) is incorporated as written.¹¹⁵

12.A.30

In the absence of documentation to ensure that habitat to replace that lost for kit fox is, indeed, suitable for pronghorn and meets their life-history needs, this mitigation measure cannot be considered acceptable for the loss of pronghorn habitat. As a result, the County must incorporate a mechanism that requires the Applicant to provide scientific evidence demonstrating lands proposed for kit fox mitigation also provide a conservation benefit to pronghorn.

DEIR Appendix E.8: Identification of Kangaroo Rats

Many flaws exist in the design, implementation and documentation of the processes involved in identifying the special-status species of kangaroo rats. Section 3.1 in the trapping survey report states: “A total of 1400 traps were set and monitored over 7 nights during the period of 5 August through 15 August 2013.” However, the actual amount of time a trap (or trapping cluster) was operated in a location was not documented, nor did trapping follow USFWS protocols (2013) for special-status kangaroo rats (including Tipton, short-nosed, San Joaquin, and Fresno), and was not conducted for a sufficiently long duration at each trapping location (cluster of traps) to provide reliable capture probability (detection probability).¹¹⁶

12.A.31

Although not cited by H.T. Harvey, the USFWS (2013) trapping protocol for kangaroo rats indicates that: “traps should be set and monitored for a minimum of five consecutive nights. If the survey is for determining presence only, then the trapping will end upon the first capture of the target species.” Due to the fact that H.T. Harvey was not skilled in species identification of the kangaroo rats being caught, they also could not know if they allowed sufficient trapping duration (number of nights) at a location to capture a special-status species. A complicating factor is that more common species usually occupy traps first and exclude rarer species.

The issue of trapping duration is especially problematic across most of the Project area because trap clusters were established at a relatively close spacing along portions of the road access corridor as well as along a portion of the west-central border of the Project area. Traps were sparsely set across the remainder of the Project site and therefore

¹¹⁴ Cypher, B. L. 2003. Foxes. Pages 511–546 in J. A. Feldhamer, B. C. Thompson, and J. A. Chapman. Wild mammals of North America. Biology, management, and conservation. Second edition. Johns Hopkins University Press, Baltimore, Maryland, USA.

¹¹⁵ California Flats Solar Project EIR Page 4.4-188.

¹¹⁶ USFWS. 2013. Survey protocol for determining presence of San Joaquin kangaroo rats. U.S. Fish and Wildlife Service, Sacramento Field Office. March 2013.

cannot be considered a reliable sample, or full-coverage ground survey as suggested in H.T. Harvey's report.

12.A.31

DEIR Appendix E.14: Spotlight Surveys Report

2.2 Survey Methods

The survey methods used by H.T. Harvey did not meet USFWS kit fox survey protocol requirements (USFWS 1999) and therefore provide an inaccurate assessment of kit fox habitat and population dynamics. The protocol specifies "spotlighting of the project vicinity must be conducted for a minimum of 10 nights within a 15 day period (weather permitting). "Project vicinity" means the actual project site plus an area encompassing a 2-mile radius around the project site."

However, according to the DEIR in section 2.2.1, "Spotlight surveys were conducted during two sessions. The first survey session, focused on the Project site and access road corridor, was conducted on the nights of 26 November and 4 and 5 December 2012. The second survey session was conducted on the nights of 18–20 and 23–25 September 2013." Additionally, section 3.1 states, "spotlight surveys were conducted during nine nights in 2012 and 2013, for a total of ~102 survey hours. The 2012 winter surveys were conducted 5 hours each night by two teams during three nights (~30 hours), and the 2013 fall surveys were conducted 6 hours each night by two teams during six nights (72 hours)." The methodology followed by H.T. Harvey clearly does not conform with the USFWS standards for accurate field assessments for kit fox.

12.A.32

The spotlight surveys were not conducted across the specified 2-mile radius of the Project location. Appendix E.14, Figures 3 and 4, show that surveys outside of the Project site were limited to a few roads and did not cover the 2-mile radius. According to the protocol, an appropriate survey would consist of 10 nights for each period and not a total of 9 nights over a 2-year period.

The USFWS protocol also specifies: "spotlighting surveys cannot be conducted in the same area where camera and scent stations are in place." Scent stations were not even used in kit fox surveys conducted by H.T. Harvey, which in itself does not meet USFWS protocol. The adequacy of the spotlight surveys can also be challenged based on the results of the ground surveys of the project area. For example, on p. 4 of E.14, the report states [*italics inserted*]

The full-coverage ground survey is an efficient and comprehensive means of detecting and identifying signs of wildlife, which for nocturnal mammals initially occurs through indirect evidence, such as potential dens, tracks, and scat. For example, full-coverage ground surveys of the Project site and access road revealed the *presence of 255 potential dens with characteristics typical of species such as the San Joaquin kit fox, American badger, or the relatively common coyote (Canis latrans).*

The spotlight surveys, however, identified only 7 badgers, 4 kit fox, and 28 coyotes. Other research has shown that spotlight surveys produce an inadequate understanding of

kit fox abundance. For example, Warrick and Harris (2001) compared the adequacy of spotlight and scent stations for monitoring San Joaquin kit fox populations.¹¹⁷ They showed that although data collected during spotlight and scent-station surveys can track general trends in kit fox abundance over relatively large areas, both techniques lacked precision that limited their usefulness. They recommended that additional replication and increasing sampling intensity would probably make these indices more reliable.

12.A.32

4.1.1 San Joaquin Kit Fox

Section 4.1.1 of the report states, “No San Joaquin kit fox were detected at the 39 camera stations (390 camera station nights) distributed throughout the Project site at densities of more than eight cameras per square mile.” However, H.T. Harvey did not fully apply the USFWS survey protocol for the species. Specifically, the USFWS kit fox protocol (1999) specifies that: “concurrently with camera stations, scent stations must be established within the project area at a minimum of eight per 640 acres and maintained for a minimum of 10 consecutive nights (weather conditions permitting).” Yet Section 2.6 of Appendix E.1 clearly states, “cameras were deployed without bait...”. Scent stations are generally used to monitor mammals, including kit fox as documented in the 2001 Warrick and Harris study.

12.A.33

Further inconsistencies are documented on page 15 of section 4.1.3 (Suitability of the Project Site as a Corridor), which states, “As a consequence, the Project site does not support connection between the Cholame Valley population of San Joaquin kit fox and regional populations of kit fox within the Salinas Valley and the Ciervo-Panoche Natural Area.” Yet this conclusion is at odds with statements made in Section 4.4, which as previously discussed concludes that the project area “represents the northern target zone for kit fox connectivity through the Carrizo Plain” and “the project has the potential to interfere substantially with the movement of San Joaquin kit fox in an important habitat linkage.”

12.A.34

PROJECT IMPACT ISSUES

Botanical Resources

Sensitive Natural Communities

The DEIR addresses impacts to wildflower fields, but none of the other sensitive natural community types that could be affected by the Project.¹¹⁸ As discussed above, this may be due to the consultant’s failure to properly identify all sensitive natural community types within the Project area.¹¹⁹ The County must analyze and disclose Project impacts

12.A.35

¹¹⁷ Warrick, G.D., and C.E. Harris. 2001. Evaluation of spotlight and scent-station surveys to monitor kit fox abundance. *Wildlife Society Bulletin* 29:827-832.

¹¹⁸ DEIR, p. 4.4-40.

¹¹⁹ H.T. Harvey & Associates. 2014a. California Flats Solar Project, Monterey County, California, Biotic Report. *See also* H.T. Harvey & Associates. 2014b. California Flats Solar Project, Monterey and San Luis Obispo Counties, CA, 2013 Special Status Plant Pre-Construction and Project Vicinity Survey Report.

to: Yerba mansa (*Anemopsis californica* alliance), alkali heath (*Frankenia salina* alliance), Willow-Cottonwood Riparian Woodland (*Populus fremontii*-*Salix laevigata* association), chairmakers's bulrush (*Scirpus americanus* alliance), Valley needlegrass grassland (*Stipa Pulchra Alliance*), Valley Oak Woodland (*Quercus lobata* alliance), and serpentine bunchgrass grassland.¹²⁰ The CDFW has indicated that any impacts to a state-listed sensitive natural community are significant.¹²¹

12.A.35

Impact B-1: Impacts to Species and their Habitat(s)

Although the DEIR (Table 4.4-5) provides population numbers for all special-status plants detected during the surveys, it fails to translate these numbers into "occurrences," which is the standard used by the CDFW and CNDDDB. The CDFW defines an occurrence as a location record of a plant, that is a population or group of populations within 0.25 mile and not separated by significant habitat discontinuities. Describing how many occurrences/populations are represented in the BSA would indicate if the number of individuals represented in the table are one large population, or have habitat discontinuities that make certain populations more significant than others based on the habitat(s) they occupy and the species they co-occur with. Based on information currently in the CNDDDB, no single populations of round-leaved filaree (*California macrophylla*) or shining navaretia (*Navarretia nigelliformis* subsp. *radians*) have come close to the level of abundance exhibited in the Project survey areas in 2013, a poor rainfall year.¹²² If these are single populations, they are certainly important core populations that deserve protection from impacts. As CRPR 4 plants, demographic data for South Coast Range morning-glory (*Calystegia collina* subsp. *venusta*) and hogwallow starfish (*Hesperovax caulescens*) are not readily available in the CNDDDB. However, the EIR needs to evaluate how population numbers for those two species relate to demographic data for all extant occurrences to determine whether the occurrences in the Project area are significant core populations. A discussion of how many extant versus extirpated occurrences of each of the special-status species found on the Project site should also be included to add context and assess the potential that the Project would impact core populations.

12.A.36

12.A.37

Additionally, the DEIR fails to discuss how the presence of the various special-status plants in the Project area relates to the statewide (or nationwide) range of each species. This precludes the ability to assess whether the Project would have a significant impact on a given species' range. For example, are the populations that occur in the Project area disjunctions, range extensions, or peripheral populations? Peripheral populations are

12.A.38

¹²⁰ California Department of Fish and Game. 2010. *List of Vegetation Alliances and Associations*. Vegetation Classification and Mapping Program, California Department of Fish and Game. Sacramento, CA. September.

¹²¹ California Department of Fish and Game. 2009 Jun 10. Comments on the Palmdale Hybrid Power Plant Request for Incidental Take Permit for Mohave Ground Squirrel and Additional Comments Regarding Impacts to Biological Resources. CEC Docket 08-AFC-09. Letter from Edmund Pert, Regional Manager, to Sara Head, City of Palmdale. p. 4.

¹²² California Department of Fish and Wildlife. 2014. California Natural Diversity Database Version 5

significant in terms of genetic variability, which leads to higher rates of speciation.¹²³ Furthermore, it is well documented that peripheral populations have evolutionary significance and conservation value; are at higher risk of extirpation; and are extremely important for the long-term conservation of genetic diversity and evolutionary potential, especially when considering the need to adapt to future climate change. For example, the presence of Temblor buckwheat (*Eriogonum temblorense*) in the Project area represents one of the westernmost occurrences (peripheral populations) of this taxon's overall range.¹²⁴

12.A.38

Burrowing Owl

The DEIR allows the Applicant to “passively relocate” burrowing owls off the Project site.¹²⁵ Consistent with CDFW guidelines, passive relocation is a potentially significant impact under CEQA that must be analyzed.¹²⁶ Specifically, the temporary or permanent closure of burrows may result in: (a) significant loss of burrows and habitat for reproduction and other life history requirements; (b) increased stress on burrowing owls and reduced reproductive rates; (c) increased depredation; (d) increased energetic costs; and, (e) risks posed by having to find and compete for available burrows.¹²⁷

12.A.39

The need for full analysis of potential impacts from passive relocation is further supported by research that indicates most translocation projects have resulted in fewer breeding pairs of burrowing owls at the mitigation site than at the original site, and that translocation projects generally have failed to produce self-sustaining populations.¹²⁸ Investigators attribute the limited success of translocation to: (a) strong site tenacity exhibited by burrowing owls, and (b) potential risks associated with forcing owls to move into unfamiliar and perhaps less preferable habitats.¹²⁹

A high percentage (> 50%) of burrowing owl nests that are disturbed by human activities are abandoned.¹³⁰ Many of the burrows that remain following construction of the Project will be proximal to various sources of anthropogenic disturbance. Moreover, habitat adjacent to burrows is ecologically important to burrowing owls (especially habitat

¹²³ Leppig G & J. White. 2006. Conservation of peripheral plant populations in California. *Madroño* 53:264–274.

¹²⁴ Consortium of California Herbaria (CCH). 2014. Data provided by the participants of the Consortium of California Herbaria (ucjeps.berkeley.edu/consortium/).

¹²⁵ DEIR, p. 4.4-136.

¹²⁶ California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation, p. 10.

¹²⁷ *Ibid.*

¹²⁸ Smith BW, JR Belthoff. 2001. Burrowing owls and development: short-distance nest burrow relocation to minimize construction impacts. *J. Raptor Research* 35:385-391.

¹²⁹ *Ibid.*

¹³⁰ Klute DS, LW Ayers, MT Green, WH Howe, SL Jones, JA Shaffer, SR Sheffield, TS Zimmerman. 2003. Status Assessment and Conservation Plan for the Western Burrowing Owl in the United States. U.S. Department of Interior, Fish and Wildlife Service, Biological Technical Publication FWS/BTP-R6001-2003, Washington, D.C. p. 69.

within 600 meters of the nest burrow).¹³¹ The Project would fragment habitat for many of the owls that are not evicted from their burrows. Research has shown that habitat fragmentation causes local burrowing owl populations to decline.¹³²

The DEIR briefly acknowledges some of the adverse effects that the Project would have on burrowing owls. For example, with respect to passive relocation it states: “the loss of habitat and exposure to predation during displacement from established home range may result in indirect impacts that include a potential long-term decline in reproductive success and population viability.”¹³³ The DEIR subsequently acknowledges that Project impacts to burrowing owls would be a significant.¹³⁴ However, the County ultimately concludes that those impacts would be mitigable.¹³⁵ The County lacks the basis for this conclusion because the DEIR does nothing to ensure that the Project does not contribute to a “long-term decline in reproductive success and population viability.” Furthermore, the DEIR provides minimization measures, but no actual mitigation to offset significant impacts associated with the displacement and mortality of individuals, or disturbances that cause owls to abandon their burrows—issues that the DEIR identified as significant impacts.¹³⁶

12.A.39

Of great concern is the County’s claim that all of numerous potentially significant impacts to burrowing owls can be mitigated—even though it does so without referencing scientific literature that demonstrates mitigation is possible or reasonably likely to succeed. To the contrary, scientific studies have shown that over the past 15+ years, mitigation measures intended to offset the loss of habitat and slow or reverse further decline of this species have **proven ineffective**.¹³⁷

As a result of the issues identified above, the Project would have significant and unmitigated impacts to burrowing owls.

California Condor

The DEIR states without qualification that the condor could suffer fatalities due to the solar infrastructure, digestion of “microtrash,” and accidents with vehicles.¹³⁸ The DEIR continues by discussing indirect impacts to this critically endangered species, which could include “the long-term decline in population viability for California condors. Since no roosting or nesting habitat will be affected, and since the project site comprises only a

12.A.40

¹³¹ California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation. 36 pp. Available at: <www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf>, pp. 21 and 22.

¹³² *Ibid.*

¹³³ DEIR, p. 4.4-103.

¹³⁴ *Ibid.*

¹³⁵ *Ibid.*

¹³⁶ *Ibid.*

¹³⁷ California Department of Fish and Game. 2012 Mar 7. Staff Report on Burrowing Owl Mitigation. Available at: <www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf>. p. 1.

¹³⁸ DEIR, p. 4.4-97.

very small area of foraging habitat relative to what is available in the region, no indirect impacts to California condors are expected.”

Although at first the authors of the DEIR state that indirect impacts would include decline in population viability, this statement is immediately contradicted by saying there would be no indirect impacts. Any impact, either direct or indirect, to such a critically endangered species would have a high overall impact on the population.

12.A.40

Raptors and Other Special-Status Birds

The DEIR lumps the discussion of impacts to all other “Raptors and Other Special Status Birds”, completely ignoring species-specific behaviors, habitat requirements and breeding patterns that can be significantly impacted in a variety of ways by Project activities.

12.A.41

Pages 103-104 make a sweeping statement concerning the impacts to other avifauna on the project area:

The site also provides suitable foraging and/or breeding habitat for other special-status raptors and bird species, including Swainson’s hawks, white-tailed kites, and northern harriers, short-eared owl, long-eared owl, loggerhead shrike, tricolored blackbird, mountain plover, Oregon vesper sparrow (wintering only), and grasshopper sparrow. Many other native bird species that are protected under state and federal law during nesting could occur and nest on-site. Based on the condition of the site and observations of avian activity in 2012 and 2013, there is a high likelihood of birds nesting within the project site.

12.A.42

While the DEIR mentions “[m]any other native bird species that are protected under state and federal law during nesting could occur and nest on-site”, it neglects to mention that the Migratory Bird Treaty Act (“MBTA”) generally prohibits negative impacts all native birds during the nesting season (typically February 1 through September 15). The DEIR subsequently admits that Project construction could result “in the destruction or abandonment of nests, eggs, or young.”¹³⁹ However, without focused surveys for nests, no quantification of the impact caused by construction of the Project can be made.

The DEIR notes that “up to 2,188 acres of natural habitat that supports breeding or foraging habitat for raptors and other birds would be permanently affected by the project”. It then alleges: “this is relatively small compared to the large areas of foraging and breeding habitat available in the region. The modification of approximately 2,188 acres of avian habitat represents just 1% of the rangelands inventoried in Monterey County.” This rationale, however, assumes all rangelands inventoried in Monterey County provide suitable foraging and breeding habitat, which they do not. On rangelands, habitat suitability for raptors can be drastically affected by management practices and grazing regimes. For example, in much of the western United States overgrazing has reduced habitat quality for golden eagles by altering foraging habitat and

12.A.43

¹³⁹ DEIR, pp. 4.4-103 and -104.

reducing prey abundance.¹⁴⁰ In addition, numerous studies have demonstrated that overgrazing, haying, agricultural intensification, and the widespread use of rodenticides can degrade or eliminate habitat by reducing the numbers of small mammals (i.e., prey items for many raptor species).¹⁴¹ The claim made in the DEIR also does not address the cumulative impact of the Project on habitat that has already been substantially reduced.

12.A.43

The DEIR Fails to Disclose, Analyze, or Minimize the Adverse Effects Associated with the Translocation or Relocation of Wildlife

The Project will require the translocation (or relocation) of burrowing owls, badgers, and potentially other wildlife species off of the Project site. The translocation of wildlife out of the Project area constitutes a potentially significant impact that has not been disclosed, analyzed, or mitigated in the DEIR.

Efforts to translocate (or relocate) animals often fail. Animals that are captured, handled, and/or forced to move from their territory often become stressed. This may lead to the increased production of lactic acid or “stress hormones” in the organism.¹⁴² These physiological changes often cause a non-trivial amount of mortality. In addition, when an animal is moved to an unfamiliar location, it has no knowledge of the habitat resources essential for its survival (e.g., food, water, and cover). The lack of cover in an unfamiliar setting makes a prey species an easy target for predators. Moreover, many species exhibit an intrinsic homing response that is energetically taxing, and that may preclude procurement of food and cover.

12.A.44

Translocation can cause several other types of adverse effects to translocated individuals, and individuals at the recipient site. Even if the translocated animal is moved to an area with readily available resources, aggressive competitors may prevent the displaced animal from accessing the resources, and from mating. For example, research has demonstrated that translocating Tipton kangaroo rats to occupied habitats may cause territorial disputes with existing residents.¹⁴³ This often leads to detrimental effects on both the translocated and resident animals. In addition, translocation can spread disease by introducing diseased animals into a healthy population, or by translocating healthy animals into an afflicted area. Finally, if animals are moved into an area that is already at its carrying capacity the entire population can crash.

¹⁴⁰ Kirk, D.A. 1996. Updated status report on the golden eagle *Aquila chrysaetos* in Canada.

Committee on the Status of Endangered Wildlife in Canada, Ottawa, ON, Canada.

¹⁴¹ Shuford, W. D., and Gardali, T., editors. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.

¹⁴² Tracy C.R., K. E. Nussear, T. C. Esque, K. Dean-Bradley, C. R. Tracy, L. A. DeFalco, K. T. Castle, L. C. Zimmerman, R. E. Espinoza, and A. M. Barber. 2006. The importance of physiological ecology in conservation biology. Integrative and Comparative Biology. pp. 1–15.

¹⁴³ Goldingay RL, PA Kelly, DF Williams. 1997. The Kangaroo Rats of California: endemism and conservation of keystone species. Pacific Conservation Biology. Volume 3; p. 47-60. Sydney: Surrey Beatty & Sons.

Several studies have examined the fate of translocated animals. For example, Dodd and Seigel (1991) reviewed projects involving relocation, repatriation, and translocation (“RRT”) of amphibians and reptiles. The authors concluded “[m]ost RRT projects involving amphibians and reptiles have not demonstrated success as conservation techniques and should not be advocated as if they are acceptable management and mitigation practices.”¹⁴⁴ Efforts to translocate birds and mammals also have had a high failure rate.¹⁴⁵ Germano and Bishop (2009) concluded “[i]f the release habitat is not of high quality, then the chances of a positive outcome are low even when all other factors are taken into consideration. Although we could not evaluate habitat quality in the publications we reviewed, poor or unsuitable habitat was one of the most often reported reasons for translocation failure.”¹⁴⁶

Mitigation imposed in the DEIR includes having a biologist move animals “to an appropriate location outside the area of disturbance.”¹⁴⁷ According to the DEIR: “[t]he candidate sites for relocation shall be identified before construction and shall be selected based on the size and type of habitat present, the potential for negative interactions with resident species, and the species’ range.”¹⁴⁸ The DEIR lacks any information on how these variables will be assessed. Furthermore, the DEIR does not identify the distribution, quantity, condition, and ownership of “replacement habitat” in the vicinity of the Project site. This precludes the ability to assess the probability that suitable receptor will be identified, and thus the anticipated fate of animals that are moved off the site.

Inferences on habitat value require consideration of many more factors than the three identified in the DEIR. Indeed, there are many biotic and abiotic factors that may influence habitat quality, and thus the likely fate of the translocated animal. The key focus of habitat evaluation should be determining limiting agents in species abundance, because habitat by itself does not guarantee long-term fitness of individuals and the viability of populations.¹⁴⁹

These issues exemplify the need for the Applicant and County to develop thorough and well-crafted translocation (or relocation) plans for any species that may need to be moved off the Project site prior to construction. To minimize the adverse effects associated with translocation, it is essential that the resources agencies approve the translocation plans prior to implementation.

¹⁴⁴ Dodd CK Jr., RA Seigel. 1991. Relocation, repatriation, and translocation of amphibians and reptiles: Are they conservation strategies that work? *Herpetologica* 47(3):336-350.

¹⁴⁵ Dickens MJ, DJ Delehanty, LM Romero. 2009. Stress and translocation: alterations in the stress physiology of translocated birds. *Proceeding: Biological Sciences* 276(1664):2051-2056. *See also* Chipman R., D. Slate, C. Rupprecht, and M. Mendoza. 2007. Downside risk of wildlife translocation. Pages 223–232 in Dodet B., A. R. Fooks, T. Muller, N. Tordo, editors. *Proceedings: towards the elimination of rabies in Eurasia*. Joint OIE/WHO/EU International Conference, Paris, France.

¹⁴⁶ Germano, J.M. and Bishop, P.J. (2008) Suitability of amphibians and reptiles for translocation. *Conservation Biology* 23:(1) 7-15.

¹⁴⁷ *E.g.*, *See* DEIR, pp. 4.4-137 and -138.

¹⁴⁸ *Ibid.*

¹⁴⁹ Morrison ML, BG Marcot, and RW Mannan. 2006. *Wildlife-Habitat Relationships: Concepts and Applications*. 3rd ed. Washington (DC): Island Press. 493 p.

Avian Collisions

One hundred million to 1 billion birds are killed annually by daytime window collisions at low-level structures in the U.S. alone.¹⁵⁰ The visual system of birds is simply not capable of perceiving glass as a physical obstacle.¹⁵¹ Whereas the extent of the threat remains unknown, the presence of dead and injured birds at solar facilities operating (or under construction) in California demonstrates that solar arrays present a collision hazard to birds.¹⁵² At PV facilities, birds appear to mistake the broad reflective surfaces of the solar arrays for water, trees, and other attractive habitat.¹⁵³ When this occurs, the birds become susceptible to mortality by: (a) colliding with the solar arrays; or (b) becoming stranded (often injured) on a substrate from which they cannot take flight, thereby becoming susceptible to predation and starvation.¹⁵⁴

The DEIR's analysis of the collision risk to birds is limited to the following:

Solar facilities also present risk for bird collisions with solar panels. Birds migrating at night or moving between the perennial and ephemeral streams on the project site or the adjacent stock ponds would also be at an increased risk of collision with the solar panels as the panels might be mistaken for open sky or water. Based on the known distribution of the species in the project area, observations made during surveys, and fatality results emerging from other solar sites in California (Western EcoSystems Technology, Inc. 2014), some collision mortality is anticipated to occur.¹⁵⁵

12.A.45

The collision risk posed by the Project's solar arrays *is not* limited to birds migrating at night or birds moving between water features. A recent study completed by the National Fish and Wildlife Forensics Laboratory (2014) reported: "solar facilities appear to represent "equal-opportunity" hazards for the bird species that encounter them. The remains of 71 species were identified [at three solar facilities], representing a broad range of ecological types. In body size, these ranged from hummingbirds to pelicans; in ecological type from strictly aerial feeders (swallows) to strictly aquatic feeders (grebes) to ground feeders (roadrunners) to raptors (hawks and owls). The species identified were equally divided among resident and non-resident species, and nocturnal as well as diurnal species were represented."¹⁵⁶

¹⁵⁰ Evans Ogden LJ. 2002. Summary Report on the Bird Friendly Building Program: Effect of Light Reduction on Collision of Migratory Birds. Special Report for the Fatal Light Awareness Program (FLAP). Available at: <http://www.flap.org/>.

¹⁵¹ Klem D Jr. 2009. Preventing Bird-Window Collisions. *The Wilson Journal of Ornithology* 121(2):314–321.

¹⁵² Kagan RA, TC Viner, PW Trail, EO Espinoza. 2014. Avian Mortality at Solar Energy Facilities in Southern California: A Preliminary Analysis. National Fish and Wildlife Forensics Laboratory. 28 pp.

¹⁵³ *Ibid.*

¹⁵⁴ *Ibid.*

¹⁵⁵ DEIR, p. 4.4-106.

¹⁵⁶ Kagan RA, TC Viner, PW Trail, EO Espinoza. 2014. Avian Mortality at Solar Energy Facilities in Southern California: A Preliminary Analysis. National Fish and Wildlife Forensics Laboratory. 28 pp.

I concur with the County's conclusion that the Project will cause avian collision mortality. However, the level of mortality cannot even be estimated because the Applicant's consultant did not conduct any surveys to assess avian abundance in the Project area.¹⁵⁷ Without a defensible, quantitative estimate of likely mortality, the County does not have the basis to defend its conclusion that avian mortalities would be mitigated to a less-than-significant level.¹⁵⁸ Moreover, the DEIR does not contain any specific measures to mitigate avian collisions with the Project's solar arrays. As a result, the Project would have an unmitigated significant impact to special-status bird species, including species protected by Fish and Game Code and/or the Migratory Bird Treaty Act.

12.A.45

MITIGATION ISSUES

The DEIR Improperly Defers Details That Are Fundamental to Evaluating the Proposed Mitigation

The central components of the County's proposed mitigation are: (1) Nested Compensatory Mitigation; and (2) a Habitat Mitigation and Monitoring Plan ("HMMP"). With few exceptions, the County relies on these two mitigation measures to justify its conclusion that Project impacts to sensitive biological resources would be mitigated to a less-than-significant level.

The County fails to identify critical components of the compensatory mitigation package and HMMP. Instead, it defers that responsibility back onto itself (as the body responsible for approving anything proposed by the Applicant)—after the CEQA review process terminates. This precludes the public, resource agencies, and scientific community from being able to submit informed comments on the adequacy of the actual mitigation.

12.A.46

In order for mitigation measures to be effective, they must be specific, enforceable, and feasible actions that will improve environmental conditions.¹⁵⁹ The mitigation proposed in the DEIR lacks these components. Specifically, it fails to establish: (a) the location of potential mitigation sites, the status of the target species at those sites, and the feasibility of acquiring sites in the vicinity of the Project; (b) success standards for the proposed mitigation measures, and a definitive enforcement mechanism that ensures those standards are met; (c) the contingency or remedial action measures that will be triggered if success standards are not achieved; (d) the measures that will be implemented to ensure the long-term protection and management of the target species at the mitigation sites; and (e) the required monitoring program, including the monitoring techniques, effort, and frequency. Because the DEIR lacks these fundamental details, the County has not ensured Project impacts to sensitive biological resource would be reduced to a less-than-significant level.

¹⁵⁷ DEIR, Appendix E1, p. 17.

¹⁵⁸ DEIR, p. 4.4-106.

¹⁵⁹ California Department of Fish and Game. 2012 Mar 7. Staff Report on Burrowing Owl Mitigation. Available at: <www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf>. p. 8.

We have the following specific comments pertaining to County’s proposed mitigation strategy:

- | | |
|---|---------|
| 1. The California Endangered Species Act requires “full mitigation” for any impacts to state listed species. Fully mitigating impacts generally requires measures to increase the carrying capacity of the species at a mitigation site. The EIR needs to describe what measures will be taken to increase carrying capacity or otherwise fully mitigate Project impacts to state listed species. | 12.A.47 |
| 2. The DEIR indicates conservation easements (i.e., mitigation sites) shall allow livestock grazing when and where it is deemed beneficial for the habitat needs of impacted species. The County needs to identify the analysis that will be conducted to determine whether grazing is “beneficial” to the impacted species, who will be responsible for deeming it appropriate, and how the appropriate grazing levels and regime will be monitored and enforced. | 12.A.48 |
| 3. According to the DEIR: “If suitable habitat is unavailable, or in lieu of acquiring already suitable special status animal species habitat, the applicant may enhance potential habitat...”. Although the DEIR identifies “standards” for enhanced habitat, those standards are so low (e.g., consisting of annual grasslands after five years) that they do not require the Applicant to actually do anything to achieve the standards. Moreover, the mitigation measure was developed for kit fox, and while it may be feasible to enhance land for the benefit of that species, it is not possible for all of the species for which this is intended to cover. As a result, the County must explain the vetting process for approving habitat enhancements satisfactory for Nested Compensatory Mitigation. | 12.A.49 |
| 4. The DEIR gives the example of “habitat is within 10 miles of known nesting golden eagles” as a performance standard for enhancement to create suitable foraging habitat. However, the Project would eliminate, degrade, and fragment foraging habitat for <u>numerous</u> pairs of eagles. As a result, the County needs to develop a means for ensuring the Nested Compensatory Mitigation is commensurate with Project impacts. Moreover, research has shown that most golden eagle foraging activities are limited to a fraction of the home range where prey items are most easily acquired. ¹⁶⁰ Thus, the County cannot assume that all suitable all <i>suitable</i> foraging habitat within 10 miles of a nest site is of equal value to golden eagles. | 12.A.50 |
| 5. The DEIR suggests the “success” of compensatory mitigation sites could be determined in as few as three years post-construction. ¹⁶¹ However, if “occupancy” of the animals is “success” (e.g., through colonization of the sites), then it is not successful until the animals occur (step 1), then become established for a few years (step 2), and then breed (given that it is appropriate for the location) (step 3). Three years is completely inadequate to have confidence that these steps have occurred. | 12.A.51 |

¹⁶⁰ Marzluff JM, ST Knick, MS Vekasy, LS Schueck, TJ Zarriello. 1997. Spatial use and habitat selection of golden eagles in southwestern Idaho. *The Auk* 114(4):673-687.

¹⁶¹ DEIR, p. 4.4-122.

- 6. The DEIR allows the Applicant to submit its HMMP and the associated success criteria 12 months after issuance of grading permits. This condition allows significant impacts to occur before the HMMP is implemented or even developed. The County cannot make conclusions on the insignificance of Project impacts based on its hope that the HMMP will accomplish the County’s intent. 12.A.52
- 7. The compensatory mitigation requirements for individual species (e.g., burrowing owl, western spadefoot, California red-legged frog) include the clause that compensation lands shall be “managed and monitored under the HMMP as outlined in the above measure B-1(b).” This clause is relatively meaningless because measure B-1(b) does not include any specific requirements for managing and monitoring. Instead, it is limited to the information that the Applicant will need to include in the HMMP (e.g., performance criteria, monitoring methods, reporting requirements, etc.). 12.A.53

Botanical Resources

Compensatory Mitigation for List 4 Species

The DEIR states that compensatory mitigation for CRPR List 4 plants would be required “if more than 30% of the population occurring within the BSA, and/or known populations of the species within a 5-mile radius of the BSA (where such populations are known), would be affected.”¹⁶² However, this measure is not included in the DEIR’s list of mitigation requirements. Furthermore, the DEIR does not justify why 30% was selected and why it is relevant to affected known populations of the species within the arbitrarily assigned 5-mile radius. Some of the plants that occur in the Project area (e.g., small-flowered morning glory) may already be at the minimum viable population size, meaning any impacts to the species would cause the population to drop below a sustainable level. In this case, impacts would be significant and remain unmitigated. Compensatory mitigation requirements for CRPR List 4 plant species should be based on the species’ ecology, population size, and sustainability, and susceptibility to known threats. 12.A.54

Mitigation Measure B-1(a): Nested Compensatory Mitigation

The distribution of plants across the landscape is based on a variety of biotic and abiotic factors (e.g., soils, nutrients, precipitation, temperature, competition, disturbance). In most cases, special-status plant species require more specialized habitat, that is less understood, than animal habitat. If mitigation is to be nested as has been proposed in the DEIR, the County must establish a mechanism for ensuring the mitigation site(s) provide the microhabitat conditions required by the species for which habitat compensation is required. 12.A.55

Some of the special-status plants that occur in the Project area are extremely abundant. For example, the abundance and density of round-leaved filaree on the Project site (and in the greater region) appears to be one of the largest known concentrations of the species

¹⁶² DEIR, p. 4.4-88.

throughout its range.¹⁶³ Similarly, the abundance of shining navarretia on the Project site (and to a lesser extent within the buffer zone) “is unprecedented for this species.”¹⁶⁴ The DEIR concludes: “[t]hese abundances are likely the result of a *unique combination of conditions*, including heavy clay soils, flat topography, mild serpentine influence, and southern exposures.”¹⁶⁵

Despite the Project site’s “unique combination of conditions,” the County has concluded that direct impacts to special-status plants can be mitigated to a less-than-significant level through compensatory mitigation.¹⁶⁶ However, the DEIR provides no evidence that: (a) sizable populations of the target special-status plant species occur outside of the immediate Project area; or that (b) lands occupied by the target species are available for acquisition. To the contrary, existing information indicates some of the target special-status plant species have extremely limited distribution and populations sizes in California. As a result, the County’s conclusion hinges on a mitigation measure that may be infeasible.

12.A.55

B-1(c): Pre-Construction Special Status Plant Surveys

Special-status plant surveys were not conducted for the Project’s utility line corridor. The DEIR rationalizes this omission by requiring pre-construction surveys after Project approval.¹⁶⁷ This is not a reliable mitigation strategy for two main reasons. First, without reliable information on the species that occur—and as a result, the level and types of Project impacts to those species—the County cannot conclude the proposed mitigation would reduce Project impacts to less-than-significant levels. A conclusion of this nature would rely on the presumption that all impacts can be mitigated to a less than significant level. Such a presumption is unrealistic, especially because the forthcoming surveys may yield completely unexpected results that cannot be mitigated by standard conditions. Because the utility corridor contains habitat types that are not in other portions of the Project area, there is a relatively high potential that surveys of the utility corridor will result in “new” information and changed circumstances.

12.A.56

Second, the DEIR lacks a mechanism for disclosing the results of the surveys so they can be vetted by the public, resource agencies, and scientific community prior to Project construction. As a result, the DEIR lacks a mechanism for ensuring all potentially significant impacts to special-status plants are avoided, minimized, and mitigated; and that the Project complies with regulations governing sensitive botanical resources.

Due to these issues, protocol-level surveys of the utility line corridor need to be completed and included in a recirculated DEIR.

B-1(e): Compensatory Mitigation Ratios for Special Status Plant Species

¹⁶³ DEIR, p. 4.4-86 and Appendix E6, Table 8.

¹⁶⁴ DEIR, p. 4.4-86 and Appendix E6, Table 8.

¹⁶⁵ DEIR, p. 4.4-86. [emphasis added].

¹⁶⁶ DEIR, p. 4.4-89.

¹⁶⁷ DEIR, p. 4.4-122.

The justification behind the County’s proposed compensation strategy for special-status plants is unclear and unsubstantiated. For example:

12.A.57

1. What significant thresholds are actually being proposed, and what are the specific methods that will be used to calculate those thresholds?
2. How will the County calculate the “known population within 5 miles of the project impact area?” What is the County’s definition of “known population,” and will the size of that population be based on an estimate or a census? If the population size is estimated, what confidence level will be applied?
3. How was the significance threshold of 10% (apparently) determined, and why would impacts to 10% of the regional population (defined in the DEIR as within 5 miles) of a CRPR Rank 1 species not be significant? By definition, Rank 1 species are considered rare or endangered under CEQA §15380(b) and (d).
4. What is the rationale for setting a threshold that includes plants outside of the area directly affected by the Project? What evidence does the County have that plants on other lands are, and will continue to be, managed for the conservation of botanical resources?

12.A.58

12.A.59

12.A.60

Regardless, the mitigation ratio should be increased to 3:1 (acres preserved:acre affected) to ameliorate the net loss of habitat impacted by the Project.

12.A.61

B-2(a): Valley Needlegrass Grassland and Wildflower Field Habitat Mitigation

All sensitive communities that will be permanently impacted by the project should be incorporated into this mitigation measure. Due to the rarity and difficulty of restoration and revegetation of some community types, mitigation ratios should be similar to valley needlegrass grassland at 2:1. These community types include Yerba mansa (*Anemopsis californica* alliance), alkali heath (*Frankenia salina* alliance), and Valley Oak Woodland (*Quercus lobata* alliance). This ratio would ameliorate the net loss of sensitive communities impacted by the project.

12.A.62

For sensitive communities that are less rare in the region such as Willow-Cottonwood Riparian Woodland (*Populus fremontii-Salix laevigata* association) and chairmakers's bulrush (*Scirpus americanus* alliance), the mitigation ratio should be 1:1.

The mitigation ratio for wildflower field should be 3:1, not only to ameliorate the net loss of impacted habitat, but because many of the special-status plant populations were found as components of that habitat type. However, wildflower mitigation should not be allowed to count towards mitigation for special-status plants. This is because alliances nested within the wildflower field Holland type¹⁶⁸ are poorly understood and still under development as a part of the Manual of California Vegetation. Many of those alliances

12.A.63

¹⁶⁸ Holland, R. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*. California Department of Fish and Game, The Resources Agency. 156 pp.

have a high level of diversity that is yet to be described.¹⁶⁹ Furthermore, wildflower field species composition varies seasonally and from year to year, making identification problematic when trying to overlap occupied rare plant habitat as mitigation. For this reason, selection of mitigation sites for wildflower fields should be based on data collected via CNPS rapid assessment/releve methodology at the potential mitigation sites.

12.A.63

Burrowing Owl

According to the DEIR: [i]f suitable burrows for burrowing owls are identified during preconstruction surveys, mitigation measure B-1(m) shall be implemented.”¹⁷⁰ The Avoidance and Mitigation Efforts in B-1(m) are discussed as, “[t]he appropriateness of using reduced buffer distances or burrow-specific buffer distances shall be established on a case-by-case basis by a qualified ornithologist *who may consult* with CDFW... [*italics inserted*]. If no suitable alternative natural burrows are available for the owls, then, for each owl that is evicted, at least two artificial burrows shall be installed in suitable nearby habitat areas.”

No discussion, however, is provided on long-term maintenance of the artificial burrows. Nor does the DEIR provide measures to indicate that successful occupation of the artificial burrows by owls will be determined or is required. These mitigation efforts, therefore, are incomplete and do not qualify as acceptable measures to mitigate Project impacts on this special-status bird.

12.A.64

In a proceeding section on mitigation efforts the DEIR indicates compensatory habitat mitigation requirements are:

...a minimum of 3:1 ratio (preserved habitat: affected habitat). The compensatory mitigation must provide equal or greater habitat value than the project site... to mitigate for the impacts to burrowing owl habitat within the SDAs, the project Proponent shall provide compensatory mitigation acreage, adjusted to reflect the final footprint of the SDAs in consultation with CDFW, but at a minimum of 2:1 ratio. All compensatory mitigation must comprise habitat of value equal to, or greater than, the project site.¹⁷¹

Yet the DEIR does not include any discussion of monitoring of success-failure of the mitigation measures, the possibility of adaptive management, nor are any other management plans discussed.

B-1(w): California Tiger Salamander and California Red-Legged Frog Relocation Sites

This mitigation measure states that “Prior to the initiation of any other protective measures, a qualified biologist (i.e., biologist approved by USFWS and/or CDFW to

12.A.65

¹⁶⁹ Jennifer Buck, CNPS Vegetation Ecologist, Personal communication with Heath Bartosh September 18, 2014.

¹⁷⁰ DEIR, p. 4.4-134.

¹⁷¹ *Ibid*, p. 4.4-137.

translocate CTS and CRLF) shall, in consultation with USFWS and CDFW, identify appropriate relocation sites for any adult, juvenile, and larval CTS and CRLF that may be observed during the pre-construction survey or monitoring activities described below and need to be moved from within the limits of direct impact disturbance.”¹⁷² The DEIR provides no information about potential relocation sites or evidence that suitable relocation sites exist. Furthermore, the DEIR fails to require the studies needed to ensure relocation sites are indeed suitable for animals cleared from the Project area. As a result, it is not possible to evaluate the consequences that translocation will have on relocated and resident individuals, and thus the likelihood that the County’s proposed mitigation will be successful.

12.A.65

B-1(bb): California Tiger Salamander Daily Pre-activity Surveys

Mitigation measure B-1(bb) states that “any individual detected during these pre-activity surveys shall be moved to a designated relocation sites identified under B-1(p).”¹⁷³ However, B-1(p) does not specifically identify and document the actual location(s) and habitat quality of designated relocation sites, but instead discusses wildlife-friendly fence design.¹⁷⁴ As a consequence, the DEIR lacks the evidence needed to demonstrate mitigation measure B-1(bb) will effectively mitigate impacts to the species.

12.A.66

B-2(f): Stream Channel Avoidance and Minimization

According to this mitigation measure, “To prevent high-velocity water flow from causing bank downcutting at downstream locations, any improvements related to road realignment, widening, or the ability of the road to convey heavy equipment for construction shall be designed to handle heavy storm flows (up to the 25-year flood event or more), such that undesirable velocities and channel destabilization downstream of the crossing shall be avoided.” The design standard (i.e., up to 25-year flood event or more) associated with this mitigation measure is not consistent with the lifespan of the Project (at least 30 to 40 years).¹⁷⁵ Moreover, the design standard is not supported by literature, and probably is not sufficient to protect water quality (and thus habitat quality), especially during more severe/extreme 100-year storm events predicted with climate change.¹⁷⁶

12.A.67

San Joaquin Kit Fox

The DEIR describes kit fox “Den Avoidance and Minimization Measures” that need to be applied during all phases of construction and facility operation. One of the stated

12.A.68

¹⁷² Project EIR, Section 4.4, pg. 144

¹⁷³ Project EIR, Section 4.4, pg. 148

¹⁷⁴ Project EIR, Section 4.4, pg. 138

¹⁷⁵ DEIR, p. 2-87.

¹⁷⁶ National Research Council, 2010, “America’s Climate Choices: Panel on Advancing the Science of Climate Change,” ISBN 978-0-309-14588-6 (528 pages). *See also* U.S. Climate Change Science Program: Synthesis and Assessment Product 3.3, 2008, “Weather and Climate Extremes in a Changing Climate,” (164 pages)

prescriptions is the implementation of buffers of 100-200 feet to avoid dens including natal dens, with up to 500 feet for natal dens during construction. However, these buffers are severely inadequate because, even during the pup-rearing season, nightly movements average greater than 6 miles (Zoellick et al. 1987b).

Additionally, evidence that a den is in use is often absent. Reese et al. (1992) found that 64% percent of the dens used by radio-collared kit foxes showed no sign of kit foxes.¹⁷⁷ Foxes change dens four or five times during the summer months, and change natal dens one or two times per month (Morrell 1972).¹⁷⁸ Foxes on the Carrizo Plain Natural Area changed dens much more frequently than indicated by Morrell's study (White and Ralls 1993).¹⁷⁹

Although mitigation activities are specified for habitat loss, the DEIR does not account for long-term degradation of the local population, or the potential negative impacts to the Project area as a dispersal and movement corridor, the latter of which cannot be mitigated for in any meaningful manner.

12.A.68

According to DEIR pages 181-182: "the project has the potential to interfere substantially with the movement of San Joaquin kit fox in an important habitat linkage. Therefore, this impact would be considered Class II, significant but mitigable." And according to page 182:

Implementation of MMs B-1(b, h, i and j) would reduce interference with the movement of San Joaquin kit fox in an important habitat linkage to less-than-significant levels by avoiding and minimizing impacts on the species and its habitat and by compensating for unavoidable impacts through the preservation and management of suitable linkage habitat for the species consistent with mitigation measure B-1(j). No further mitigation is required.

However, the literature clearly shows that providing buffers of 100-500 feet are inadequate to ensure kit fox occupancy and allow movements given the home range size and nightly movements of the species. On- and off-site mitigation cannot eliminate degradation of the local kit fox population or compensate for loss of movement opportunities.

Nesting Birds

The Project site and surrounding habitat provide habitat for nesting birds. Most nesting bird species are protected by the Migratory Bird Treaty Act ("MBTA"), and in some cases the State and federal government. The DEIR requires pre-construction surveys for

12.A.69

¹⁷⁷ Reese, E.A., T.T. Kato, W.H. Berry, and T.P. O'Farrell. 1992. Ground penetrating radar and thermal images applied to San Joaquin kit fox (*Vulpes macrotis mutica*) at Camp Roberts Army National Guard Training Site, CA. U.S. Dept. of Energy Topical Report, No. EGG 10617-2162, EG&G/EM Santa Barbara Operations, National Technical Service, Springfield, VA.

¹⁷⁸ Morrell, S.H. 1972. Life history of the San Joaquin kit fox. California Fish and Game 58:162-174.

¹⁷⁹ White, P.J., and K. Ralls. 1993. Reproduction and spacing patterns of kit foxes relative to changing prey availability. Journal of Wildlife Management 57:861-867.

nesting birds.¹⁸⁰ However, it does not specify the sampling methods, which will determine the adequacy and efficacy of the surveys.

Nest finding is labor intensive and can be extremely difficult due to the tendency of many species to construct well-concealed or camouflaged nests.¹⁸¹ As a result, most studies that involve locating bird nests employ a variety of search techniques. These include flushing an adult from the nest, watching parental behavior (e.g., carrying nest material or food), and systematically searching nesting substrates.¹⁸² In addition, breeding birds are known to be most active and detectable early in the morning, and there is a strong positive correlation between survey effort and abundance of nests detected. Consequently, any mitigation imposed by the County needs to specify the techniques that should be applied to nest surveys, the expected level of effort (i.e., hours per unit area), the search area, the time of day surveys will be permitted, and the techniques that should be used to minimize human-induced disturbance.

12.A.69

To ensure compliance with the MBTA, many public agencies mandate habitat disturbance projects occur outside of the breeding season. As mitigation, I recommend the County require the Applicant to conduct ground disturbance activities outside of the avian breeding season. If ground disturbance must occur during the breeding season, the mitigation measure needs to be revised to reflect the fact that some species of birds can build a nest and initiate egg-laying in less than 14 days (i.e., the mitigation measure should be revised to require pre-construction surveys no more than 14 days prior to construction).¹⁸³

12.A.70

CONCLUSION

Based on the issues described in this letter, it is my professional opinion that the County needs to revise and re-circulate the Project's EIR.

Sincerely,



Scott Cashen, M.S.
Senior Biologist

¹⁸⁰ DEIR, pp. 4.4-139 and -140.

¹⁸¹ DeSante DF, GR Geupel. 1987. Landbird productivity in central coastal California: the relationship to annual rainfall and a reproductive failure in 1986. *Condor*. 89:636-653.

¹⁸² Martin TE, GR Geupel. 1993. Nest-Monitoring Plots: Methods for Locating Nests and Monitoring Success. *J. Field Ornithol.* 64(4):507-519.

¹⁸³ Baicich PJ, CJ Harrison. 1997. *A guide to the nests, eggs, and nestlings of North American Birds*. 2nd ed. London: Academic Press.

Scott Cashen, M.S.

Senior Biologist / Forest Ecologist

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Scott Cashen has 20 years of professional experience in natural resources management. During that time he has worked as a field biologist, forester, environmental consultant, and instructor of Wildlife Management. Mr. Cashen currently operates an independent consulting business that focuses on CEQA/NEPA compliance issues, endangered species, scientific field studies, and other topics that require a high level of scientific expertise.

Mr. Cashen has knowledge and experience with many taxa, biological resource issues, and environmental regulations. This knowledge and experience has made him a highly sought after biological resources expert. To date, he has been retained as a biological resources expert for over 40 projects. Mr. Cashen's role in this capacity has encompassed all stages of the environmental review process, from initial document review through litigation support and expert witness testimony.

Mr. Cashen is a recognized expert on the environmental impacts of renewable energy development. He has been involved in the environmental review process for 28 renewable energy projects, and he has been a biological resources expert for more of California's solar energy projects than any other private consultant. In 2010, Mr. Cashen testified on 5 of the Department of the Interior's "Top 6 Fast-tracked Solar Projects" and his testimony influenced the outcome of each of these projects.

Mr. Cashen is a versatile scientist capable of addressing numerous aspects of natural resource management simultaneously. Because of Mr. Cashen's expertise in both forestry and biology, Calfire had him prepare the biological resource assessments for all of its fuels treatment projects in Riverside and San Diego Counties following the 2003 Cedar Fire. Mr. Cashen has led field studies on several special-status species, including plants, fish, reptiles, amphibians, birds, and mammals. Mr. Cashen has been the technical editor of several resource management documents, and his strong scientific writing skills have enabled him to secure grant funding for several clients.

AREAS OF EXPERTISE

- CEQA, NEPA, and Endangered Species Act compliance issues
- Comprehensive biological resource assessments
- Endangered species management
- Renewable energy
- Forest fuels reduction and timber harvesting
- Scientific field studies, grant writing and technical editing

EDUCATION

M.S. Wildlife and Fisheries Science - The Pennsylvania State University (1998)

B.S. Resource Management - The University of California, Berkeley (1992)

PROFESSIONAL EXPERIENCE

Litigation Support / Expert Witness

As a biological resources expert, Mr. Cashen reviews CEQA/NEPA documents and provides his client(s) with an assessment of biological resource issues. He then prepares written comments on the scientific and legal adequacy of the project's environmental documents (e.g., EIR). For projects requiring California Energy Commission (CEC) approval, Mr. Cashen has submitted written testimony (opening and rebuttal) in conjunction with oral testimony before the CEC.

Mr. Cashen can lead field studies to generate evidence for legal testimony, and he can incorporate testimony from his deep network of species-specific experts. Mr. Cashen's clients have included law firms, non-profit organizations, and citizen groups.

REPRESENTATIVE EXPERIENCE

Solar Energy Facilities

- Abengoa Mojave Solar Project
- Avenal Energy Power Plant
- Beacon Solar Energy Project
- Blythe Solar Power Project
- Calico Solar Project
- Calipatria Solar Farm II
- Carrizo Energy Solar Farm
- Catalina Renewable Energy Project
- Fink Road Solar Farm
- Genesis Solar Energy Project
- Heber Solar Energy Facility
- Imperial Valley Solar Project
- Ivanpah Solar Electric Generating
- Maricopa Sun Solar Complex
- Mt. Signal and Calexico Solar
- San Joaquin Solar I & II
- Solar Gen II Projects
- SR Solis Oro Loma
- Vestal Solar Facilities
- Victorville 2 Power Project

Geothermal Energy Facilities

- East Brawley Geothermal
- Mammoth Pacific 1 Replacement
- Western GeoPower Plant and

Wind Energy Facilities

- Catalina Renewable Energy Project
- Ocotillo Express Wind Energy
- San Diego County Wind Ordinance
- Tres Vaqueros Repowering Project
- Vasco Winds Relicensing Project

Biomass Facilities

- Tracy Green Energy Project

Development Projects

- Alves Ranch
- Aviano
- Chula Vista Bayfront Master Plan
- Columbus Salame
- Concord Naval Weapons Station
- Faria Annexation
- Live Oak Master Plan
- Napa Pipe
- Roddy Ranch
- Rollingwood
- Sprint-Nextel Tower

Project Management

Mr. Cashen has managed several large-scale wildlife, forestry, and natural resource management projects. Many of these projects have required hiring and training field crews, coordinating with other professionals, and communicating with project stakeholders. Mr. Cashen's experience in study design, data collection, and scientific writing make him an effective project manager, and his background in several different natural resource disciplines enable him to address the many facets of contemporary land management in a cost-effective manner.

REPRESENTATIVE EXPERIENCE

Wildlife Studies

- Peninsular Bighorn Sheep Resource Use and Behavior Study: (CA State Parks)
- "KV" Spotted Owl and Northern Goshawk Inventory: (USFS, Plumas NF)
- Amphibian Inventory Project: (USFS, Plumas NF)
- San Mateo Creek Steelhead Restoration Project: (Trout Unlimited and CA Coastal Conservancy, Orange County)
- Delta Meadows State Park Special-status Species Inventory: (CA State Parks, Locke)

Natural Resources Management

- Mather Lake Resource Management Study and Plan – (Sacramento County)
- Placer County Vernal Pool Study – (Placer County)
- Weidemann Ranch Mitigation Project – (Toll Brothers, Inc., San Ramon)
- Ion Communities Biological Resource Assessments – (Ion Communities, Riverside and San Bernardino Counties)
- Del Rio Hills Biological Resource Assessment – (The Wyro Company, Rio Vista)

Forestry

- Forest Health Improvement Projects – (CalFire, SD and Riverside Counties)
- San Diego Bark Beetle Tree Removal Project – (SDG&E, San Diego Co.)
- San Diego Bark Beetle Tree Removal Project – (San Diego County/NRCS)
- Hillslope Monitoring Project – (CalFire, throughout California)

Biological Resources

Mr. Cashen has a diverse background with biological resources. He has conducted comprehensive biological resource assessments, habitat evaluations, species inventories, and scientific peer review. Mr. Cashen has led investigations on several special-status species, including ones focusing on the foothill yellow-legged frog, mountain yellow-legged frog, desert tortoise, steelhead, burrowing owl, California spotted owl, northern goshawk, willow flycatcher, Peninsular bighorn sheep, red panda, and forest carnivores.

REPRESENTATIVE EXPERIENCE

Avian

- Study design and Lead Investigator - Delta Meadows State Park Special-Status Species Inventory (*CA State Parks: Locke*)
- Study design and lead bird surveyor - Placer County Vernal Pool Study (*Placer County: throughout Placer County*)
- Surveyor - Willow flycatcher habitat mapping (*USFS: Plumas NF*)
- Independent surveyor - Tolay Creek, Cullinan Ranch, and Guadacanal Village restoration projects (*Ducks Unlimited/USGS: San Pablo Bay*)
- Study design and Lead Investigator - Bird use of restored wetlands research (*Pennsylvania Game Commission: throughout Pennsylvania*)
- Study design and surveyor - Baseline inventory of bird species at a 400-acre site in Napa County (*HCV Associates: Napa*)
- Surveyor - Baseline inventory of bird abundance following diesel spill (*LFR Levine-Fricke: Suisun Bay*)
- Study design and lead bird surveyor - Green Valley Creek Riparian Restoration Site (*City of Fairfield: Fairfield, CA*)
- Surveyor - Burrowing owl relocation and monitoring (*US Navy: Dixon, CA*)
- Surveyor - Pre-construction raptor and burrowing owl surveys (*various clients and locations*)
- Surveyor - Backcountry bird inventory (*National Park Service: Eagle, Alaska*)
- Lead surveyor - Tidal salt marsh bird surveys (*Point Reyes Bird Observatory: throughout Bay Area*)
- Surveyor – Pre-construction surveys for nesting birds (*various clients and locations*)

Amphibian

- Crew Leader - Red-legged frog, foothill yellow-legged frog, and mountain yellow-legged frog surveys (*USFS: Plumas NF*)

- Surveyor - Foothill yellow-legged frog surveys (*PG&E: North Fork Feather River*)
- Surveyor - Mountain yellow-legged frog surveys (*El Dorado Irrigation District: Desolation Wilderness*)
- Crew Leader - Bullfrog eradication (*Trout Unlimited: Cleveland NF*)

Fish and Aquatic Resources

- Surveyor - Hardhead minnow and other fish surveys (*USFS: Plumas NF*)
- Surveyor - Weber Creek aquatic habitat mapping (*El Dorado Irrigation District: Placerville, CA*)
- Surveyor - Green Valley Creek aquatic habitat mapping (*City of Fairfield: Fairfield, CA*)
- GPS Specialist - Salmonid spawning habitat mapping (*CDFG: Sacramento River*)
- Surveyor - Fish composition and abundance study (*PG&E: Upper North Fork Feather River and Lake Almanor*)
- Crew Leader - Surveys of steelhead abundance and habitat use (*CA Coastal Conservancy: Gualala River estuary*)
- Crew Leader - Exotic species identification and eradication (*Trout Unlimited: Cleveland NF*)

Mammals

- Principal Investigator – Peninsular bighorn sheep resource use and behavior study (*California State Parks: Freeman Properties*)
- Scientific Advisor – Study on red panda occupancy and abundance in eastern Nepal (*The Red Panda Network: CA and Nepal*)
- Surveyor - Forest carnivore surveys (*University of CA: Tahoe NF*)
- Surveyor - Relocation and monitoring of salt marsh harvest mice and other small mammals (*US Navy: Skagg's Island, CA*)
- Surveyor – Surveys for Monterey dusky-footed woodrat. Relocation of woodrat houses (*Touré Associates: Prunedale*)

Natural Resource Investigations / Multiple Species Studies

- Scientific Review Team Member – Member of the science review team assessing the effectiveness of the US Forest Service's implementation of the Herger-Feinstein Quincy Library Group Act.
- Lead Consultant - Baseline biological resource assessments and habitat mapping for CDF management units (*CDF: San Diego, San Bernardino, and Riverside Counties*)

- Biological Resources Expert – Peer review of CEQA/NEPA documents (*Adams Broadwell Joseph & Cardoza: California*)
- Lead Consultant - Pre- and post-harvest biological resource assessments of tree removal sites (*SDG&E: San Diego County*)
- Crew Leader - T&E species habitat evaluations for Biological Assessment in support of a steelhead restoration plan (*Trout Unlimited: Cleveland NF*)
- Lead Investigator - Resource Management Study and Plan for Mather Lake Regional Park (*County of Sacramento: Sacramento, CA*)
- Lead Investigator - Biological Resources Assessment for 1,070-acre Alfaro Ranch property (*Yuba County, CA*)
- Lead Investigator - Wildlife Strike Hazard Management Plan (*HCV Associates: Napa*)
- Lead Investigator - Del Rio Hills Biological Resource Assessment (*The Wyro Company: Rio Vista, CA*)
- Lead Investigator – Ion Communities project sites (*Ion Communities: Riverside and San Bernardino Counties*)
- Surveyor – Tahoe Pilot Project: Validation of California’s Wildlife Habitat Relationships (CWHR) Model (*University of California: Tahoe NF*)

Forestry

Mr. Cashen has five years of experience working as a consulting forester on projects throughout California. Mr. Cashen has consulted with landowners and timber operators on forest management practices; and he has worked on a variety of forestry tasks including selective tree marking, forest inventory, harvest layout, erosion control, and supervision of logging operations. Mr. Cashen’s experience with many different natural resources enable him to provide a holistic approach to forest management, rather than just management of timber resources.

REPRESENTATIVE EXPERIENCE

- Lead Consultant - CalFire fuels treatment projects (*SD and Riverside Counties*)
- Lead Consultant and supervisor of harvest activities – San Diego Gas and Electric Bark Beetle Tree Removal Project (*San Diego*)
- Crew Leader - Hillslope Monitoring Program (*CalFire: throughout California*)
- Consulting Forester – Forest inventories and timber harvest projects (*various clients throughout California*)

Grant Writing and Technical Editing

Mr. Cashen has prepared and submitted over 50 proposals and grant applications. Many of the projects listed herein were acquired through proposals he wrote. Mr. Cashen's clients and colleagues have recognized his strong scientific writing skills and ability to generate technically superior proposal packages. Consequently, he routinely prepares funding applications and conducts technical editing for various clients.

PERMITS

U.S. Fish and Wildlife Service Section 10(a)(1)(A) Recovery Permit for the Peninsular bighorn sheep

CA Department of Fish and Game Scientific Collecting Permit

PROFESSIONAL ORGANIZATIONS / ASSOCIATIONS

The Wildlife Society (Conservation Affairs Committee member)

Cal Alumni Foresters

Mt. Diablo Audubon Society

OTHER AFFILIATIONS

Scientific Advisor and Grant Writer – *The Red Panda Network*

Scientific Advisor – *Mt. Diablo Audubon Society*

Grant Writer – *American Conservation Experience*

Scientific Advisor and Land Committee Member – *Save Mt. Diablo*

TEACHING EXPERIENCE

Instructor: Wildlife Management - The Pennsylvania State University, 1998

Teaching Assistant: Ornithology - The Pennsylvania State University, 1996-1997

August 2014

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EDUCATION

Graduate: Oregon State University, Corvallis (June 1982)

Degree: Ph.D., Wildlife Science

Thesis: Response of avian communities to herbicide-induced vegetation changes, western Oregon.

Graduate: Texas A&M University, College Station (Dec. 1977)

Degree: M.S., Wildlife Science

Thesis: Life history and status of the Olivaceous [Neotropic] Cormorant.

Undergraduate: Northern Arizona University, Flagstaff (May 1975)

Degree: B.S., Zoology (magna cum laude)

EXPERIENCE

(See also Grants, Contracts, and Consulting)

Current (2005 to date): Professor and Caesar Kleberg Chair in Wildlife Ecology and Conservation, Department of Wildlife and Fisheries Sciences, Texas A&M University, College Station

2003 to 2005: Research Director, Great Basin Institute, University of Nevada, Reno

July 2001 to July 2003: Field Station Manager (Academic Administrator), University of California, White Mountain Research Station, Bishop, CA

Aug. 1993 to 2002: Adjunct Associate Professor of Wildlife Biology, School of Renewable Natural Resources, Univ. of Arizona, Tucson, AZ

May 1996 to June 2001: Adjunct Professor of Wildlife Biology, Department of Biological Sciences, California State University, Sacramento, CA

Aug. 1993 to Dec. 1995: Research Director, Appleton-Whittell Research Sanctuary, National Audubon Society, Elgin, AZ

July 1988 to July 1994: Associate Professor of Wildlife Biology, Department of Forestry

and Resource Management, University of California, Berkeley, CA

July 1988 to July 1992: Research Scientist (0.33 FTE), White Mountain Research Station, University of California, Los Angeles, CA (salary release for research).

Aug. 1982 to June 1988: Assistant Professor of Wildlife Biology, Department of Forestry and Resource Management, University of California, Berkeley, CA

Jan. 1979 to July 1982: Research Assistant, Oregon Cooperative Wildlife Research Unit, Oregon State University, Corvallis

Sept. 1977 to Dec. 1978: Assistant Curator, Western Foundation of Vertebrate Zoology, Camarillo, CA

Sept. 1978 to Dec. 1978: Biology Instructor, Glendale Community College, Glendale, CA

Sept. 1976 to Aug. 1977: Graduate Research Fellow, Welder Wildlife Foundation, Sinton, TX

Other Skills

Professional Packer, Rock Creek Pack Station, Bishop, California (Part-time, spring-summer 1993 to date); packing, guiding, horse shoeing, wrangling/roping, cooking, natural history instruction.

Permits and Certificates

Mine Safety and Health Administration (MSHA) 5000-23 Certificate of Training, Inexperienced Miner, Surface, Metal; Underground

Master Bander (No. 21755), USGS Bird Banding Laboratory

USFWS Recovery (Endangered Species) and State Permits (available upon request)

UNIVERSITY COURSES TAUGHT

(U = undergraduate; G = graduate)

Texas A&M University

Wildlife Study Design (G; WFSC 618), 2006-present (even years)

General Ornithology (U; WFSC 402), 2006-present (yearly)

Wildlife Restoration (U/G; WFSC 419/619), 2007-present (odd years)

Fundamentals of Ecology Lab (U; RENR 215), 2013-present

Fundamentals of Ecology (U; RENR 205), 2014

Wildlife Conservation and Management (U; WFSC 201), 2005-2006

University of Nevada, Reno

Seminar, Wildlife Restoration (G), 2003

White Mountain Research Station, University of California

Research Experience for Undergraduates (U), 2002-04

California State University, Sacramento

Animal Biology (U), 1996
Biometrics (U), 1999
Conservation Biology (G), 1999

University of Arizona

Topics in Wildlife (study design, wildlife habitat)(G), 1993
Advanced Wildlife Management (G), 1995

University of California, Berkeley

American Wildlife: identification and conservation (U), 1982-92
Case Histories in Wildlife Management (U), 1983-91
Forestry Summer Camp (wildlife)(U), 1982-91
Wildlife Ecology (U), 1992
Wildlife-habitat Relationships (G), 1984-92

GRADUATE THESES DIRECTED (U.C. Berkeley, 1982-1992; U. Arizona, 1993 to 2010; California State U., Sacramento, 1996 to 2003; University of Nevada, Reno, 2003 to 2010; Texas A&M University, 2005 to date

M.S.: 40 completed, **4 in progress**
Ph.D: 18 completed, **2 in progress**
Post doctoral: 5 completed, **1 in progress**

PUBLICATIONS

Books

2014 Morrison, M.L., and H.A. Mathewson (editors). Wildlife habitat conservation: concepts, challenges, and solutions. The Wildlife Society, Wildlife Management and Conservation book series. The Johns Hopkins University Press, Baltimore, MD. (in press)

2009 Morrison, M.L. Restoring wildlife: ecological concepts and practical applications. Island Press, Washington, DC.

2008 Morrison, M.L., W.M. Block, M.D. Strickland, B.A. Collier, and M.J. Peterson. Wildlife study design. Second edition. Springer-Verlag, New York, N.Y.

2007 Morrison, M.L., L. Bies, and C. Nolden. 2007. The leadership workbook. a how-to guide on building leadership skills in your life and profession". The Wildlife Society, Bethesda, Maryland

2006 Morrison, M.L., B.G. Marcot, and R.W. Mannan. Wildlife-habitat relationships: concepts and applications. Third edition. Island Press, Washington, DC.

2002 Morrison, M.L. Wildlife Restoration: Techniques for habitat analysis and animal monitoring. Island Press, Washington, DC.

2001 Morrison, M.L., W.M. Block, M.D. Strickland, and W.L. Kendall. Wildlife study design. Springer-Verlag, New York, N.Y.

1998 Morrison, M.L., B.G. Marcot, and R.W. Mannan. Wildlife-habitat relationships: concepts and applications. Second edition. Univ. of Wisconsin Press, Madison.

1992 Morrison, M.L., B.G. Marcot, and R.W. Mannan. Wildlife-habitat relationships: concepts and applications. Univ. of Wisconsin Press, Madison. 343 pp.

1986, Verner, J., M. L. Morrison, and C. J. Ralph (editors). Wildlife 2000: Modeling habitat relationships of terrestrial vertebrates. Univ. of Wisconsin Press, Madison, WI.

Monographs

2013 Mathewson, H.A., M.L. Morrison, H.L. Loffland, and P.F. Brussard. Ecology of willow flycatchers in the Sierra Nevada, California: effects of meadow characteristics and weather on demographics. Ornithological Monographs No. 75.

1990, Scott, T.A., and M.L. Morrison. Natural history and management of the San Clemente Loggerhead Shrike. Proceedings of the Western Foundation of Vertebrate Zool.:4(2):23-60.

Proceedings Editor

2006 Morrison, M.L. (editor). The northern goshawk: a technical assessment of its status, ecology, and management. Studies in Avian Biology no. 31. 369pp.

2002 Scott, J.M., P.J. Heglund, M.L. Morrison, J.B. Haufler, M.G. Raphael, W.A. Wall, and F.B. Samson (editors). Predicting species occurrences: issues of scale and accuracy. Island Press, Washington, DC.

2000, Morrison, M.L. (editor). Developing multiple-species conservation reserves and habitat conservation plans. Environmental Management Volume 26, Supplement 1.

1999, Morrison, M.L., L.S. Hall, S.K. Robinson, S.I. Rothstein, D.C. Hahn, and T.D. Rich. (editors). Research and management of the brown-headed cowbird in western landscapes. Studies in Avian Biology 18:1-312.

1994, Block, W.M., M.L. Morrison, and M.H. Reiser (editors). The northern goshawk: ecology and management. Studies in Avian Biology no. 16:1-136.

1992, Carter, H.R., and M.L. Morrison (editors). Status and conservation of the Marbled Murrelet in North America. Proceedings of the Western Foundation of Vertebrate Zoology 5(1):1-133.

1990, Morrison, M.L., C.J. Ralph, J. Verner, and J.R. Jehl, Jr. (editors). Avian foraging: Theory, methodology, and applications. Studies in Avian Biology 13:1-515.

Papers

In press

Long, A. L., D. S. Finn, J. A. Grzybowski, M. L. Morrison, and H. A. Mathewson.. First documented observation of the federally endangered Golden-cheeked warbler in Oklahoma. *Bulletin of the Oklahoma Ornithological Society*

McFarland, T. M., J. A. Grzybowski, H. A. Mathewson, and M. L. Morrison. Presence-only species distribution models to predict suitability over a long-term study for a species with a growing population. *Wildlife Society Bulletin*.

Stuemke, L.A., C.E. Comer, M.L. Morrison, W.C. Conway, and R.W. Maxey. Roosts of Rafinesque's big-eared bats and southeastern *Myotis* in east Texas. *Southeastern Naturalist*.

2014

Melville, H.I.A.S., W.C. Conway, M.L. Morrison, C.E. Comer, and J.B. Hardin. Artificial nests identify possible nest predators of eastern wild turkeys. *Southeastern Naturalist* 13:80-91.

Stewart, L. R., M. L. Morrison, M. R. Hutchinson, D. N. Appel, and R. N. Wilkins. The effect of a forest pathogen on habitat selection and quality of the federally endangered golden-cheeked warbler. *Wildlife Society Bulletin* 38: 288–296.

Stewart, L. R., M. L. Morrison, D. N. Appel, and R. N. Wilkins. An estimation of the spatial distribution and temporal effects of oak wilt as it pertains to the federally endangered golden-cheeked warbler. *Wildlife Society Bulletin* 38: 279–287.

2013

Borgmann, K.L., C. J. Conway, and M.L. Morrison. Breeding phenology of birds: mechanisms underlying seasonal declines in the risk of nest predation. *PLoS ONE* 8(6): e65909. doi:10.1371/journal.pone.0065909

Campomizzi, A.J., H.A. Mathewson, M.L. Morrison, C.M. Lituma, T.J. Conkling, M.C. Cocimano, S.L. Farrell, R.N. Wilkins, and J.A. Butcher. Understanding nest success and brood parasitism in the endangered black-capped vireo: comparisons with two sympatric songbirds. *Wilson Journal of Ornithology* 125:709–719

Collier, B.A., S.L. Farrell, A.M. Long, A.J. Campomizzi, K.B. Hays, J.L. Laake, M.L. Morrison, and R.N. Wilkins. Modeling spatially explicit densities of endangered avian species in a heterogeneous landscape. *Auk* 13:666–676.

Farrell, S. L. , B. A. Collier, K. L. Skow, A. M. Long, A. J. Campomizzi, M. L. Morrison, K. B. Hays, R. N. Wilkins. Using LiDAR-derived vegetation metrics for high-resolution, species distribution models for conservation planning. *Ecosphere* 4:42. <http://dx.doi.org/10.1890/es12-00352.1>

Marshall, M. E., M. L. Morrison, and R. N. Wilkins. 2013. Tree species composition and food availability affect productivity of an endangered species: the golden-cheeked warbler. *The Condor* 115:882-892.

McFarland, T. M., H. A. Mathewson, J. E. Groce, M. L. Morrison, and R. N. Wilkins. A range-wide survey of the endangered black-capped vireo in Texas. *Southeastern Naturalist* 12:41-60.

Morrison, M.L. Wildlife restoration. Pages 246-261 *in* Wildlife management and conservation: contemporary principles and practices. P.R. Krausman and J.W. Cain III, editors. Johns Hopkins University Press, Baltimore, Maryland.

Pope, T. L., T. J. Conkling, K. N. Smith, M. R. Colon, M. L. Morrison, R. N. Wilkins. Effects of adult behavior and nest-site characteristics on black-capped vireo nest survival. *Condor* 115: 155-162.

Pope, T.L., M.L. Morrison, and R.N. Wilkins. Woodlands as quality breeding habitat for black-capped vireos. *Journal of Wildlife management* 77:994-1001.

Smith, K.N., A.J. Campomizzi, M.L. Morrison, and R.N. Wilkins. Managing brown-headed cowbirds to sustain abundance of black-capped vireos. *Wildlife Society Bulletin* 37:281-286.

2012

Campomizzi, A. J. , S. L. Farrell, T. M. McFarland, H. A. Mathewson, M. L. Morrison, R. N. Wilkins. Species conservation at a broad spatial scale: reproductive success of golden-cheeked warblers across their breeding range. *Wildlife Society Bulletin* 36: 440–449.

Campomizzi, A. J., M. L. Morrison, J. A. DeWoody, S. L. Farrell, and R. N. Wilkins. Win-stay, lose-switch and public information strategies for patch fidelity of songbirds with rare extra-pair paternity. *Scientific Reports*. 2(294).

Collier, B. A., J. E. Groce, M. L. Morrison, J. C. Newnam, A. J. Campomizzi, S. L. Farrell, H. A. Mathewson, R. T. Snelgrove, R. J. Carroll, and R. N. Wilkins. Predicting patch occupancy in fragmented landscapes at the rangewide scale for endangered species: an example of an American warbler. *Diversity and Distributions* 18:158-167

Conkling, T. J., T. L. Pope, K. N. Smith, H. A. Mathewson, M. L. Morrison, R. N. Wilkins, and J. W. Cain, III. Black-capped vireo nest predator assemblage and predictors for nest predation. *Journal of Wildlife Management* 76: on line. DOI:10.1002/jwmg.388.

Farrell, S. L., Morrison, M. L., Campomizzi, A. J. and Wilkins, R. N. Conspecific cues and breeding habitat selection in an endangered woodland warbler. *Journal of Animal Ecology*, 81: 1056–1064. doi: 10.1111/j.1365-2656.2012.01995.x

Klassen, J. A., M. L. Morrison, H. A. Mathewson, G. G. Rosenthal, and R. N. Wilkins. 2012. Canopy characteristics affect avian reproductive success of golden-cheeked warblers. *Wildlife Society Bulletin* 36: 54–60.

Lackey, M. A., M. L. Morrison, Z. G. Loman, B. A. Collier, and R. N. Wilkins. Experimental determination of the response of golden-cheeked warblers (*Setophaga chrysoparia*) to road

construction noise. Pages 91-100 in Ornithological Monographs No. 74. American Ornithologists' Union.

Lituma, C.M., M.L. Morrison, and J.D. Whiteside. Restoration of grasslands and nesting success of dickcissels (*Spiza americana*). *Southwestern Naturalist* 57:138-143

Marshall, M. E., A. M. Long, S. L. Farrell, H. A. Mathewson, M. L. Morrison, C. Newnam, and R. N. Wilkins. Using impact assessments study designs for addressing impacts to species of conservation concern. *Wildlife Society Bulletin* 36: 450–456.

Mathewson, H. A., J. E. Groce, T. M. McFarland, M. L. Morrison, J.C. Newnam, R. T. Snelgrove, B. A. Collier, and R. N. Wilkins. Estimating breeding season abundance of golden-cheeked warblers in Texas. *Journal of Wildlife Management* 76:1117–1128.

McFarland, T. M., H. A. Mathewson, J. Groce, M. L. Morrison, C. Newnam, T. Snelgrove, K. Skow, B. Collier, and R. N. Wilkins. Utilization of a species distribution model for management and conservation. *Wildlife Society Bulletin* 36: 432–439.

Morrison, M.L. The habitat sampling and analysis paradigm has limited value in animal conservation: a prequel. *Journal of Wildlife Management* 76:438-450.

Morrison, M. L., B. A. Collier, H. A. Mathewson, J. E. Groce, and R. N. Wilkins. The prevailing paradigm as a hindrance to conservation. *Wildlife Society Bulletin* 36: 408–414.

Morrison, M. L., and R. N. Wilkins. Introduction to the special section on golden-cheeked warbler conservation. *Wildlife Society Bulletin* 36: 400.

Smith, K.N., J.W. Cain III, M.L. Morrison, and R.N. Wilkins. A novel songbird nest predator: the greater arid-land katydid. *American Midland Naturalist* 167:201-212.

Smith, K.N., J.W. Cain, M.L. Morrison, and R.N. Wilkins. 2012. Nesting ecology of the black-capped vireo in southwest Texas. *Wilson Journal of Ornithology* 124:277–285.

Tegeler, A.K., M.L. Morrison, and J.M. Szewczak. Using extended-duration audio recordings to survey avian species. *Wildlife Society Bulletin* 36:21-29.

2011

Cocimano, M.C., M.L. Morrison, H.A. Mathewson, and L. Vormwald. Influence of meadow moisture levels on activity of small mammal nest predators in the Sierra Nevada, California. *Northwestern Naturalist* 92:50-56.

Laake, J.L., B.A. Collier, M.L. Morrison, and R.N. Wilkins. Point-based mark-recapture sampling. *Journal of Agricultural, Biological, and Environmental Statistics* 16:389-408.

Lackey, M.A., M.L. Morrison, Z.G. Loman, N. Fisher, S.L. Farrell, B.A. Collier, and R.N. Wilkins. Effects of road construction noise on the endangered golden-cheeked warbler. *Wildlife Society Bulletin* 35:15-19.

Lawson, A.L., M.L. Morrison, and R.D. Slack. Impacts of oil and gas development on wintering grassland birds at Padre Island National Seashore, Texas. *Southeastern Naturalist* 10:303-320.

Morrison, M.L., R.J. Young, and J.S. Romsos, and R. Golightly. Restoring forest raptors: influence of human disturbance and forest condition on northern goshawks. *Restoration Ecology* 19:273-279.

Strickland, M.D., E.B. Arnett, W.P. Erickson, D.H. Johnson, G.D. Johnson, M.L., Morrison, J.A. Shaffer, and W. Warren-Hicks. 2011. *Comprehensive Guide to Studying Wind Energy/Wildlife Interactions*. Prepared for the National Wind Coordinating Collaborative, Washington, D.C., USA.

Vormwald, L. M., M. L. Morrison, H. A. Mathewson, M. C. Cocimano, and B. A. Collier. Survival and movements of fledgling Willow and Dusky Flycatchers. *Condor* 113:834-842

2010

Block, G., and M.L. Morrison. Large-scale effects on bird assemblages in desert grasslands. *Western North American Naturalist* 70:19-25.

Borgmann, K.L., and M.L. Morrison. Factors influencing the frequency of nest parasitism by brown-headed cowbirds in the northern Sierra Nevada. *Western North American Naturalist* 70:137-143.

Butcher, J.A., M.L. Morrison, D. Ransom, Jr., R.D. Slack, and N. Wilkins. Evidence of a minimum patch size threshold of reproductive success in an endangered songbird. *Journal of Wildlife Management* 74:133–139

Collier, B. A., M. L. Morrison, S. L. Farrell, A. J. Campomizzi, J. A. Butcher, K. B. Hays, D. I. MacKenzie, and R. N. Wilkins. Monitoring golden-cheeked warblers on private lands in Texas. *Journal of Wildlife Management* 74:140-147.

Farrell, S.F., M.L. Morrison, R.N. Wilkins, R.D. Slack, and A.J. Campomizzi. Brown-headed cowbird parasitism on endangered species: relationships with neighboring avian species. *Western North American naturalist* 70:474-482.

Groce, J.E., and M.L. Morrison. Habitat use by saw-whet owls in the Sierra Nevada. *Journal of Wildlife Management* 74:1523–1532

Morrison, M.L., J. Groce, and K.L. Borgmann. Occurrence of bats in highly impacted environments: the Lake Tahoe basin. *Northwestern Naturalist* 91:87–91

Tegeler-Amones, A.K., M.L. Morrison, J.M. Szewczak, and C. Stermer. Assessing point count sampling in montane Meadows. *California Fish and Game* 96:201-212.

2009

Arnett, E.B., M.D. Strickland, and M.L. Morrison. Renewable energy resources and wildlife: impacts and opportunities. *Transactions of the 72nd North American Wildlife and Natural Resources Conference* 72:65-95.

Campomizzi, A. J., M. L. Morrison, S. L. Farrell, R. N. Wilkins, B. M. Drees, and J. M. Packard. Red imported fire ants can decrease songbird nest survival. *Condor* 111:534-537.

Morrison, M.L., and S. Fox. Bats associated with inactive mines in the western Great Basin. *Western North American Naturalist* 69:134-137.

Rognan, C.B., J.M. Szewczak, and M.L. Morrison. Vocal individuality of great gray owls in the Sierra Nevada. *Journal of Wildlife Management* 73:755-760.

Smallwood, K.S., L. Rugge, and M.L. Morrison. Influence of behavior on bird mortality in wind energy developments: the Altamont Pass Wind Resource Area, California. *Journal of Wildlife Management* 73:1082-1098.

2008

Campomizzi, A.J., J.A. Butcher, S.L. Farrell, A.G. Snelgrove, B.A. Collier, K.J. Gutzwiller, M.L. Morrison, and R.N. Wilkins. Conspecific attraction is a missing component in wildlife habitat modeling. *Journal of Wildlife Management* 72:331-336.

2007

Arnett, E. B., D. B. Inkley, R. P. Larkin, S. Manes, A. M. Manville, J. R. Mason, M. L. Morrison, M. D. Strickland, and R. Thresher. Impacts of wind energy facilities on wildlife and wildlife habitat. *Wildlife Society Technical Review* 07-1. The Wildlife Society, Bethesda, Maryland, USA.

Kuenzi, A.J., M.L. Morrison, N.K. Madhav, and J.N. Mills. Brush mouse (*Peromyscus boylii*) population dynamics and hantavirus infection during a warm, drought period in southern Arizona. *Journal of Wildlife Diseases* 43:675-683

Kunz, T.H., E.B. Arnett, B.M. Cooper, W.P. Erickson, R.P. Larkin, T. Mabee, M.L. Morrison, M.D. Strickland, and J.M. Szewczak. Assessing impacts of wind-energy development on nocturnally active birds and bats: a guidance document. *Journal of Wildlife Management* 71:2449-2486.

Kuvlesky, Jr., W.P., L.A. Brennan, M.L. Morrison, K.K. Boydston, B.M. Ballard, and F.C. Bryant. Wind energy development and wildlife conservation: challenges and opportunities. *Journal of Wildlife Management* 71:2487-2498.

Morrison, M.L. Status of the northern goshawk in the Spring Mountains, Nevada. *Great Basin Birds* 9:69-72

Morrison, M.L., K.C. Sinclair, and C.G. Thelander. 2007. A sampling framework for conducting studies of the influence of wind energy developments on birds and other animals. Pages 101-116 in de Lucas, M., G.F.E. Janns, and M. Ferrer, editors. *Birds and wind farms: risk assessment and mitigation*. Servicios Informativos Ambientales/Quercus, Madrid, Spain.

Smallwood, K.S., C.G. Thelander, M.L. Morrison, and L.M. Rugge. Burrowing owl mortality in the Altamont Pass Wind Resource Area. *Journal of Wildlife Management* 71:1513-1524.

2006

Bias, M.A., and M.L. Morrison. Habitat selection of the salt marsh harvest mouse and sympatric

rodent species. *Journal of Wildlife Management* 70:732-742.

Cain III, J.W., K.S. Smallwood, M.L. Morrison, and H.L. Loffland. Influence of mammal activity on nesting success of passerines. *Journal of Wildlife Management* 70:522-531

Keane, J.J., M.L. Morrison, and D.M. Fry. Prey and weather factors associated with temporal variation in northern goshawk reproduction in the Sierra Nevada, California. *Studies in Avian Biology* 31:85-99.

Morrison, M.L. Bird movements and behaviors in the Gulf Coast region: relation to potential wind energy developments. National renewable Energy Laboratory, Golden, Colorado. SR-500-39572. June 2006.

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Queheillalt, D.M., and M.L. Morrison. Vertebrate use of a restored riparian site: a case study on the central coast of California. *Journal of Wildlife Management* 70:859-866.

2005

Hoover, S.L., and M.L. Morrison. Behavior of red-tailed hawks in a wind turbine development. *Journal of Wildlife Management* 69:150-159.

Root, J.J., K.R. Wilson, C.H. Calisher, K.D. Wagoner, K.D. Abbott, T.L. Yates, A.J. Kuenzi, M.L. Morrison, J.N. Mills, and B.J. Beaty. Spatial clustering of murid rodents infected with hantavirus: implications from meta-analyses. *Ecological Applications* 15:565-574.

Soroka, D.E., and M.L. Morrison. Behavioral activities and breeding success of willow flycatchers in the Sierra Nevada. *Western North American Naturalist* 65:441-450.

2004

Cain III, J.W., D.M. Queheillalt, M.L. Morrison, and K. Christopherson. Bird habitat use and bird-aircraft strikes at Beale Air Force Base, California. *Transactions of the Western Section of The Wildlife Society* 2004:90-100.

Christopherson, K., and M.L. Morrison. Influence of yellow starthistle (*Centaurea solstitialis*) on small mammals in central California. *Western North American Naturalist* 64:202-207.

Gottesman, A.B., P.R. Krausman, M.L. Morrison, and Y. Petryszyn. Movements and home range of brush mice. *Southwestern Naturalist* 49:289-294.

Gottesman, A.B., M.L. Morrison, and P.R. Krausman. Habitat use by brush mice (*Peromyscus boylii*) in southeastern Arizona. *Western North American Naturalist* 64:259-264.

Hardy, P.C., D.J. Griffin, A.J. Kuenzi, and M.L. Morrison. Occurrence and habitat use of passage neotropical migrants in the Sonoran Desert. *Western North American Naturalist* 64:59-71.

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2003

Bombay, H.L., M.L. Morrison, and L.S. Hall. Scale perspectives in habitat selection and animal performance for willow flycatchers (*Empidonax traillii*) in the central Sierra Nevada, California. *Studies in Avian Biology* 26:60-72.

Cain, J.W., and M.L. Morrison. Reproductive ecology of dusky flycatchers in montane meadows of the central Sierra Nevada. *Western North American Naturalist* 63:507-512.

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Hall, L.S., and M.L. Morrison. Nesting phenology and productivity of birds in the White and Inyo mountains, California, as assessed with nest-boxes. *Western North American Naturalist* 63:63-71.

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Lynn, S., A. Averill-Murray, and M.L. Morrison. Bell's vireos and yellow-breasted chats in remnant cottonwood/willow vegetation of the lower Colorado River Valley. Pages 49-56 *in* Faber, P.M., editor. California riparian systems: processes and floodplain management, ecology, and restoration. 2001 Riparian Habitat and Floodplains Conference Proceedings. Riparian Habitat Joint Venture, Sacramento, California.

Morrison, M.L. K.S. Smallwood, and L.S. Hall. Creating habitat through plant relocation: lessons from valley elderberry longhorn beetle mitigation. *Ecological Restoration* 21:95-100.

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Hall, L.S., M.L. Morrison, L.L. Christoferson, J. Martin, C.E. Bock, and T.R. Strong. Bird populations in riparian areas of southeastern Arizona in 1985-86 and 1994-95. *Western North American Naturalist* 62:370-376.

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Morrison, M.L. Loggerhead Shrike eggshell thickness in California and Florida. *Wilson Bull.* 91:468-469.

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Morrison, M.L., R.D. Slack, and E. Shanley, Jr. Declines in environmental pollutants in Olivaceous Cormorant eggs from Texas, 1970-1977. *Wilson Bull.* 90:640-642.

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Balda, R.P., M.L. Morrison and T.R. Bement. Roosting behavior of the Pinon Jay in autumn and winter. *Auk* 94:494-504

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Morrison, M.L., and R.D. Slack. 1977. The role of flock feeding in Olivaceous Cormorants. *Bird Banding* 48:277-279.

Morrison, M.L., and R.D. Slack. 1977. Population trends and status of the Olivaceous Cormorant. *Am. Birds* 31:954-959.

Morrison, M.L., E. Shanley, Jr., and R.D. Slack. The food of nestling Olivaceous Cormorants. *Southwestern Nat.* 22:21-326.

1976

Griffing, J.P. and M.L. Morrison. Recent articles about Texas birds: 1975-1976. *Bull. Texas Ornithol. Soc.* 9:9-10.

EDITORIAL

Editor, *Ornithological Monographs* (2008 to 2013)

Associate Editor, *Western North American Naturalist* (**2007 to date**)

Editor in Chief, *Journal of Wildlife Management*, volumes 69-71 (2004 to 2007)

Editorial Board, *Environmental Management* (2000 to 2003)

Editor, *Transactions of the Western Section of The Wildlife Society* (1997 to 1998).

Associate Editor, *Journal of Wildlife Management* (1989 to 1993; 2001 to 2003; **2012 to date**).

Editor, Western Foundation of Vertebrate Zoology *Proceedings* (1987 to 1992).

WORKSHOPS

Wildlife Habitat: improving wildlife habitat through restoration. 1-2-day workshops, sponsored by the Society for Ecological Restoration, for developing wildlife-habitat restoration plans (presented periodically 1997 to 2003, nationwide)

GRANTS, CONTRACTS, CONSULTING

*Continuing studies are listed by year of initial funding and indicated in **bold**

2014

East Wildlife Foundation—Monitoring Program: Phase I, Year 2 Monitoring Program Design and Pilot Evaluation (2014-2015, \$410K, co-PI)

California Department of Fish and Wildlife—State Wildlife Grant, Townsend's big-eared bat status (2014-2016, \$130K, co-PI [Humboldt State University])

2013

Department of Defense, Fort Sill—Black-capped Vireo Survey (2013-2014, \$73.5K, co-PI)

East Wildlife Foundation—Monitoring Program: Phase I, Year 1 Monitoring Program Design and Pilot Evaluation (2013-2014, \$387K, co-PI)

2012

Joint Fire Science Program (DOA/DOI)—Compatibility of Fire Management with Conservation of

Endangered Species, the Black-capped Vireo (2012-2014, \$350K, co-PI)

Gulf Coast Prairie Landscape Conservation Cooperative (USFWS)—A Conservation Framework for Priority Species of Grassland-Shrubland Habitats of the Southern Great Plains (2012-2013, \$118K, co-PI)

2011

U.S. Fish and Wildlife Service—Nontraditional Section 6 Habitat Conservation Planning Assistance Grant, Cooperative Endangered Species Conservation Fund, to develop a General Conservation Plan for Central Texas focused on the golden-cheeked warbler and black-capped vireo (2011-2012, \$388K, co-PI)

2010

Texas Parks and Wildlife Department and the Endangered Species Program of the U.S. Fish and Wildlife Service—Traditional Section 6 grant to study the ecology of the black-capped vireo in Texas and Mexico; collaborative project with the Universidad Autonoma de Nuevo Leon (2010-2013, \$166K, co-PI)

2009

Texas A&M University and the Consejo Nacional de Ciencia y Tecnología (CONACYT)—grant award for development of a collaborative research program on the black-capped vireo in Mexico with the Universidad Autonoma de Nuevo Leon (2009-2010, \$24K, PI)

Texas Department of Transportation (TxDOT)—contract to determine the post-construction response of golden-cheeked warbler to highway construction activities (2009-2015, \$1.1M co-PI)

2008

Department of Defense—contract to determine the impact of troop maneuver activities on golden-cheeked warblers, Fort Hood, Texas. (2008-2012, \$500K, co-PI)

Texas Parks and Wildlife Department—contract through USFWS Section 6 funding to develop status assessment of the golden-cheeked warbler (2008-2009, \$43K; co-PI)

Texas Department of Transportation (TxDOT)—contract to determine response of golden-cheeked warbler and black-capped vireo to highway construction activities (2008-2011, \$1,300,000; co-PI)

Texas Department of Transportation (TxDOT)—contract to determine the statewide distribution and abundance of black-capped vireo, and to develop and test a habitat occupancy model (2008-2011, \$350K; co-PI)

2007

Texas Department of Transportation (TxDOT)—contract to determine the statewide distribution and abundance of golden-cheeked warblers, and to develop and test a habitat occupancy model (2007-2010, \$700K; co-PI)

Texas Department of Transportation (TxDOT)—contract to determine response of golden-cheeked warbler and black-capped vireo to Highway construction activities (2007-2010, \$600K;

co-PI)

Texas Parks and Wildlife Department—contract to quantify habitat use of golden-cheeked warblers on private lands (2007, \$80K)

2006

Texas Parks and Wildlife Department—contract to evaluate implementation of the Landowner Incentive Program (LIP) in Texas (2006-2011, \$165K)

Texas Parks and Wildlife Department—contract to determine the response of wildlife to grassland restoration (2006-2008, \$90K)

Texas Parks and Wildlife Department—contract to determine habitat use and roost site selection in rare bats of eastern Texas (2006-2009, \$110K; co-PI)

Texas Parks and Wildlife Department—contract to study the demography of the eastern turkey in relation to reintroductions and survival (2006-2011, \$500K; co-PI)

Texas Parks and Wildlife Department—contract to study movements of migratory birds along the Texas lower Gulf Coast (2006-2009, \$200K; co-PI)

USDA Forest Service, Rocky Mountain Research Station—contract to assist with analysis of data resulting from a study of the population ecology of secondary cavity nesting birds (\$25K)

Texas Agricultural Experiment Station—Funded acquisition of equipment for the Texas Cooperative Wildlife Collection through the TAES “Support for research equipment and facilities upgrade” program (freeze drier purchased)

2005

Department of Energy—Project collaborator through TAMU-CESU to evaluate environmental issues associated alternative oil and gas drilling extraction methods (2005-2007; \$80K for environmental portion of \$1.5M total engineering project)

Department of Defense—Co-PI for Fort Hood Off-Site Conservation Program (2005-2009; \$1,075,000)

California Department of Fish and Game (through University of California, Riverside subcontract)—Contract awarded to establish a monitoring protocol for vertebrates in montane meadows of the northern Sierra Nevada, California (2005-2007) \$110,000

2004

California Department of Transportation—Principal collaborator (J. Szewczak, PI) on grant awarded for development of bird species identification and population estimation by computerized sound analysis (2004-07) \$350,000

DOD, Strategic Environmental Research Defense Program—Principal collaborator (J. Szewczak, PI) on grant awarded for development of remote voice recording and species recognition software for bats and birds (2004-2007) \$635,000

Tahoe Regional Planning Agency—Grant awarded to develop restoration needs assessment for the northern goshawk (2004-06) \$50,000

Tahoe Regional Planning Agency—Contract awarded to serve on Pathway 2007 core science teams (wildlife and vegetation) (2004-2005) \$40,000

US Forest Service, Lake Tahoe Basin Management Unit—Contract awarded to determine distribution and abundance of northern goshawks (2004-06) \$25,000

US Navy, Concord Weapon Station—Contract awarded for surveying clapper rails and conducting habitat assessment (2004) \$4,000

US Navy, Concord Weapon Station—Contract awarded for surveying California red-legged frogs and California tiger salamanders (2004-06) \$70,000

US Navy, Concord Weapon Station—Contract awarded for surveying salt marsh harvest mouse and California clapper rail (2004-05) \$24,000

US Navy, Skaggs Island—Contract awarded for managing salt marsh harvest mice during habitat restoration (2004) \$12,000

US Navy, Naval Air Station, Lemoore—Contract awarded to conduct base-wide vertebrate surveys (2004-05) \$65,000

USFWS, Region 2—Contract awarded to serve as technical editor for revision of the Mexican spotted owl recovery plan (2004-06) \$40,000

2003

US Forest Service, Lake Tahoe Basin Management Unit—Contract awarded for assisting with development of restoration and monitoring plans, and data collection (2003 to 2008) \$60,000-\$285,000 annually

Tahoe Regional Planning Agency—Contract awarded to serve on Adaptive Management Framework Science Team, Phase I (2003-2004) \$15,000

2002

National Science Foundation—Co-PI on award to establish Research Experience for Undergraduates (REU) program at White Mountain Research Station (2002-2004) \$150,000

California Department of Fish and Game—Award to implement meadow monitoring and conduct surveys of willow flycatchers in Sierra meadow systems (2002-2005) \$170,000

2001

US Navy, Naval Air Station Lemoore—Develop and implement restoration and monitoring plan for the endangered Fresno kangaroo rat (2000 to 2013) \$40-60,000/year

Beale Air Force Base—Develop and implement monitoring plan to reduce birds as a strike hazard for military aircraft (BASH program) (2001) \$35,000

2000

California Department of Transportation--contract to conduct a natural resource assessment of Highway 26, Calaveras Co. \$9,000

1999

California Department of Transportation—contract to implement a monitoring program for elderberry survival and elderberry longhorn beetle activity on a restoration/mitigation bank, Merced Co. (Livingston), California (1999-2001) \$30,000

California Department of Transportation—contract to develop monitoring program on restoration/mitigation bank, Carmel, Monterey Co., California (1999-2002) \$197,000

California Department of Transportation--contract to conduct a natural resource assessment of the Highway 46 corridor, San Luis Obispo Co. (1999-2001) \$125,000

1998

Beale Air Force Base--cooperative agreement for monitoring wildlife and wildlife habitat (1998-99) \$5500

California Department of Fish and Game--contract to develop recovery plan for the greater sandhill crane (1998-01) \$200,000

California Department of Transportation--contract to conduct a natural resource assessment of the Highway 16 corridor, Amador Co. (1998) \$19,000

California Department of Transportation--contract to conduct a natural resource assessment, including red-legged frog survey, for the Sonora bypass project (1998) \$5,000

Edison International (So. Calif. Edison), raptor-powerline interactions in the Owens Valley, California; consulting agreement for study design, project implementation, and data analyses (1998-99)

Edison International (So. Calif. Edison)--consulting agreement to develop a workshop and white paper for multiple-species conservation reserves and electric distribution facilities (1998-99) \$35,000

Endangered Species Recovery Council--retained to assist with study design and monitoring, San Clemente Island wind power development (1998-99) \$10,000

U.S. Navy, Concord Naval Weapons Station--cooperative agreement (with P. Gertin) to develop base-wide habitat characteristics of wildlife (1998-99) \$125,000

Wildlands, Inc--retained to assist with design of mitigation plan for endangered wildlife

1997

Northern Territories, Inc., Sacramento--consulting agreement to assist with evaluation of, and development of alternatives to, the Natomas Basin Habitat Conservation Plan (1997-99)

Arizona Game and Fish, Heritage Program, Phoenix--grant to establish a cowbird control

program along the lower Colorado River (1997-99) \$11,000

U.S. Fish and Wildlife Service, Southwest Region--cooperative agreement to establish a cowbird control program along the lower Colorado River (1997-99) \$50,000/year

U.S. Bureau of Reclamation, Lower Colorado Region--cooperative agreement to establish a cowbird control program along the lower Colorado River (1997-99) \$25,000

U.S. Fish and Wildlife Service, Sacramento Field Office--contract to assess the effects of mercury contamination on the distribution of the California red-legged frog (Santa Clara Co.) (1997-98) \$45,000

U.S. Forest Service, Region 5--contract to determine distribution, habitat quality, and population dynamics of the willow flycatcher in the Sierra Nevada (1997 to 2011) \$70-190K/year

1996

Centers for Disease Control, Atlanta--contract to study the temporal variation in hantavirus in rodents in southeastern Arizona (1996-2001) \$55-75K/year

Arizona Game and Fish, Heritage Program, Phoenix--grant to determine distribution and abundance of birds in southeastern Arizona grasslands (1996-98) \$11,000

1995

U.S. Air Force, Luke Air Force Base, Arizona--contract to expand inventory-monitoring program for neotropical birds on the Barry M. Goldwater Air Force Range (routed through Jones Tech.) (1995-96) \$36,000

Consulting in the Public Interest, Islip, NY--assisting with analysis of potential influence of small mammals in the transport of buried nuclear waste (1995 to date)

National Audubon Society, New York, NY--wildlife ecology and study design consultant to assist with private forest-biodiversity initiatives in east and southeast US (1995 to date)

Arizona Department of Health Services, Phoenix--contract to study the temporal variation in hantavirus in rodents in southeastern Arizona (1995-96) \$81,000

U.S. Air Force, Luke Air Force Base, Arizona--contract to continue and expand study of the ecology of small owls on the Barry M. Goldwater Air Force Range (1995-96) \$24,000

U.S. Forest Service, Rocky Mountain Forest and Range Experiment Station, Ft. Collins--coop. agreement to develop habitat restoration plans for southwestern grasslands (P.R. Krausman, co-PI)(1995-98) \$62,000

1994

U.S. Forest Service, Rocky Mountain Forest and Range Experiment Station, Ft. Collins--coop. agreement to develop a comprehensive status of knowledge and study design for research on the wildlife resources of the borderlands ecosystem management program area (P.R. Krausman, co-PI) (1994-95) \$41,000

National Renewable Energy Laboratory (DOE), Golden, Colorado--ornithological and biostatistical consulting contract for work on avian-windpower interactions (1994 to date) \$45-48,000/year

California Department of Fish and Game, Office of Oil Spill Prevention and Response, Sacramento--monitoring of listed and protected bird species during the beach excavation project, UNOCAL Guadalupe Oilfield, San Luis Obispo, California (1994-95) \$8,000

U.S. Forest Service, Rocky Mountain Forest and Range Experiment Station, Ft. Collins--coop. agreement to determine the distribution and abundance of Mexican spotted owl prey on the Manti-LaSal National Forest (1994-95) \$15,000

Arizona Game and Fish, Heritage Program, Phoenix--grant to determine distribution and habitat ecology of the buff-breasted flycatcher (1994-96) \$10,000

U.S. Air Force, Luke Air Force Base, Arizona--contract to determine the ecology of small owls on the Barry M. Goldwater Air Force Range (1994-96) \$40,000

U.S. Navy, Office of Naval Research, Arlington, Virginia--competitive grant awarded to supplement studies on Cabeza Prieta National Wildlife Refuge, concentrating on Sonoran pronghorns (P.R. Krausman, co-PI) (1994-96) \$50,000

Dames & Moore, Tucson, Arizona--as subcontractor for U.S. Air Force, Luke Air Force Base, to establish an inventory-monitoring program for neotropical migrant birds (1994) \$18,000

U.S. Fish and Wildlife Service, Reno Field Office, Nevada--contract to determine the status of known Plecotus roosts and identification of critical bat habitat in Nevada (1994-95) \$20,000

U.S. Forest Service, Rocky Mountain Forest and Range Experiment Station, Ft. Collins--coop. agreement to determine the status and trends of neotropical migrant birds in riparian vegetation (R.W. Mannan, co-PI) (1994-95) \$6,000

U.S. Forest Service, Coronado National Forest, Tucson--cost-share agreement to determine the status and trends of neotropical migrant birds in riparian vegetation (R.W. Mannan, co-PI) (1994-95) \$22,000

U.S. Forest Service, Manti-LaSal National Forest--contract to conduct Mexican spotted owl prey study (1994-95) \$78,000

U.S. Fish and Wildlife Service, Albuquerque--contract to conduct inventory and monitoring and ecological investigations of birds on the lower Colorado River refuges (1994-95) \$70,000

1993

Department of the Navy, Western Division -- contract awarded to inventory sensitive plants and animals, Concord Naval Weapons Station (1993-94) \$40,000

U.S. Fish and Wildlife Service, Pacific Islands Office, Honolulu--survey of the Hawaiian hawk (1993-94)

Uribe & Associates, Oakland--biological resources evaluation, NAS Fallon (1993-94)

Uribe & Associates, Oakland--biological resources evaluation, NAS Lemoore (1993-94)

U.S. Fish and Wildlife Service, Albuquerque -- contract awarded to establish an inventory-monitoring program for birds at the Bill Williams River National Wildlife Refuge, Arizona (1993) \$9,000

U.S. Fish and Wildlife Service, Albuquerque -- contract awarded to inventory and conduct ecological investigations of wildlife using charcos (water holes) at the Cabeza Prieta National Wildlife Refuge, Arizona (1993-95) \$80,000

1992

California Tahoe Conservancy -- contract awarded for study of distribution, abundance, and habitats of northern goshawks in the Tahoe Basin (5/92 to 8/94) \$225,000

California Department of Fish and Game, Redding--data analysis and statistical consulting for the Cantara spill, Sacramento River (1992)

Department of the Navy, Southwestern Division -- contract awarded for study of endangered San Clemente Loggerhead Shrike (T.A. Scott, co-PI) (1992) \$100,000

Department of the Navy, Western Division -- contract awarded for study of endangered Fresno Kangaroo Rat, NAS Lemoore (1992-93) \$65,000

Department of the Navy, Western Division -- contract awarded for study of bird-habitat relationships and bird flight patterns (BASH program), NAS Lemoore (1992-93) \$50,000

Department of the Navy, Western Division -- contract awarded for study of the distribution, abundance, and ecological interactions of ground squirrels, salamanders, and raptors at Concord Naval Weapons Station (D. VanVuren, co-PI) (1992-93) \$75,000

U.S. Fish and Wildlife Service, Reno, NV -- contract awarded for study of distribution and abundance of birds along the Truckee River, California and Nevada (1992-93) \$20,000

U.S.D.A. Forest Service, Region 5 -- contract awarded to establish a monitoring program for Neotropical migrant birds in the White Mountains, California (1992-93) \$38,000

Department of the Army, Ft. Huachuca -- contract awarded to determine distribution, abundance, and habitat associations of amphibians and reptiles (1992) \$10,000

University of California, Integrated Hardwood Range Management Program -- contract awarded to determine effects of hardwood removal on wildlife (W.M. Block, co-PI)(1992-95) \$80,000

1991

California Dept. of Parks and Recreation -- contract awarded for study of distribution, abundance, and habitats of northern goshawks in the Tahoe Basin (4/91 to 7/92) \$25,000

1990

Department of the Navy, Western Division -- contract awarded for study of birds as hazards to military aircraft, Naval Air Station, Alameda (1990-91) \$15,000

Jones & Stokes, Sacramento--ecological assessment of the Mono Lake islands, California (1990-91)

San Diego County, California, Dept. of Parks and Recreation -- contract awarded for biological evaluation and habitat restoration of Guajome Regional Park (T.A. Scott, co-PI) (4/90 to 6/91; supplemented through 8/93) \$50,000

San Diego County, California, Dept. of Parks and Recreation -- contract awarded for biological evaluation and habitat restoration of Sweetwater Regional Park (T.A. Scott, co-PI) (4/90 to 6/94) \$50,000
1989

Department of the Navy, Western Division -- contract awarded for ecological studies of the endangered salt marsh harvest mouse (1 April 1989 to date; renewed annually through 1994) \$425,000

Department of the Navy, Western Division -- contract awarded for study of bird-aircraft interactions on military airfields (1 Aug. 1989 to 30 Sept. 1991) \$75,000

Pacific Southwest Forest and Range Experiment Station, USDA Forest Service -- cooperative agreement (PSW-89-0013CA) awarded for a comparison of bird communities in the pinyon-juniper and bristlecone pine habitats in the White-Inyo mountains (1989-1991) \$20,000

1988

California Department of Forestry and Fire Protection -- Contract awarded for study of wildlife-habitat relationships in oak woodlands of California (15 April 1988 to 31 Dec. 1989) \$80,000

University of California Cooperative Extension -- Renewable Resources Extension Act (RREA). Funding for a study of Wildlife-habitat relationships (WHR) validation (supplement to oak woodland wildlife study, FY 1988) \$2,000

1987

California Department of Parks and Recreation -- contract awarded for study of wildlife use of eucalyptus trees on Angel Island State Park, San Francisco Bay (June 1987 to June 1988) \$10,000

1986

Pacific Southwest Forest and Range Experiment Station, USDA Forest Service -- Cooperative Agreement (PSW-86-0006CA) awarded for study on predation of incense cedar scale insects by birds. (1 May to 31 Dec. 1986) \$12,000

University of California, Cooperative Extension -- Grant awarded for study of wildlife-habitat relationships in oak woodlands of California (1 July 1986 - 31 Dec. 1988) \$5,000

1985

Pacific Southwest Forest and Range Experiment Station, USDA Forest Service -- Cooperative Agreement (PSW-85-0011CA) awarded for development of models predicting the distribution and abundance of snags (1 March-30 June 1985) \$10,000

California Department of Fish and Game -- contract (No. 85/86 C-1285) awarded for continuation of the "Ecological Analysis of the San Clemente Loggerhead shrike (7 October 1985-30 September 1986) \$10,000

Pacific Southwest Forest and Range Experiment Station, USDA Forest Service -- contract (P.O. No. 43-9AEG-6-21) for report on "Winter foraging behavior and tree species preferences of birds in mixed-conifer forests of the western Sierra Nevada." (order date Dec. 1985; due date 31 March 1986) \$10,000

1984

California Department of Fish and Game -- contract (No. 83/84 C-685) awarded for "Ecological Analyses of the San Clemente Loggerhead Shrike (contract period March 1984 to Sept. 1984). \$15,000

Tahoe National Forest, USDA Forest Service -- contract (P.O. No. 43-9463-4-987) for report on establishment of study plots and preliminary survey of cavity-nesting birds at Sagehen Creek Field Station-UCB (order date 31 August 1984; due date 1 July 1985). \$1,000

Western Division, Naval Facilities Engineering Command, Department of the Navy -- contract (Letter of Agreement N62474-84-LT4115) awarded for continued study of the San Clemente Loggerhead Shrike, with emphasis on predators and management options (1 August 1984 to 31 August 1985) \$15,000

Pacific Southwest Forest and Range Experiment Station, USDA Forest Service -- Cooperative Agreement (PSW-84-0030CA) awarded for analysis of winter use of incense cedar as a foraging substrate by birds (contract period 24 September 1984 to 30 September 1985) \$10,000

1983

Agricultural Experiment Station, University of California -- McIntire-Stennis project (CA-F*-FRU-4274-MS) awarded for development of models predicting the response of avian communities to habitat modification in a forest management context (contract period 1983-1989) \$120,000

Pacific Southwest Forest and Range Experiment Station, USDA Forest Service -- Cooperative Agreement (PSW-83-0013CA) awarded for study of fuel wood removal and cavity nesting birds at Sagehen Creek Field Station (May 1983 to March 1984) \$10,000

Endangered Species Office, U. S. Fish and Wildlife Service -- Cooperative Agreement (14-16-0001-83284) awarded for study of endangered subspecies of the Loggerhead Shrike (*Lanius ludovicianus mearnsi*) on San Clemente Island, California (9/83-9/84) \$10,000

Tahoe National Forest, USDA Forest Service -- contract (P.O. No. 40-9A63-3-1114) for report on status of snag studies at Sagehen Creek Field Station-UCB (order date 21 Sept. 1983; due date 31 Nov. 1983) \$1,000

1982

Frank M. Chapman Memorial Fund -- grant awarded Fall 1982 for continuation of work with *Dendroica* warblers (American Museum of Natural History) \$500

1981

Alexander Wetmore Memorial Fund -- grant awarded April 1981 for analysis of hybridization between the Townsend's and Hermit warblers (American Ornithologists' Union) \$500

1980

Frank M. Chapman Memorial Fund -- grant awarded Sept. 1980 for analysis of foraging behavior of western *Dendroica* (American Museum of Natural History) \$500

1977

Bureau of Land Management -- subcontractor for assembling "Annotated Bibliographies of California Desert Birds," Oct. 1977 to Dec. 1978 (BLM, Riverside Office) \$2,000

PRESENTATIONS

(Includes only those for which I presented the talk or poster)

2010

Morrison, M.L., and N. Wilkins. Overview of research program on black-capped vireo and golden-cheeked warbler. Annual Conference, Texas Chapter of The Wildlife Society, Galveston, TX.

2009

Morrison, M.L. Conservation and management of the willow flycatcher. Willow Flycatcher and Great Gray Owl Workshop, Western Section, The Wildlife Society, Truckee (Northstar), 3-4 June 2009 (invited)

Morrison, M.L. Wind power development and wildlife: state of our knowledge. Texas Chapter, The Wildlife Society, Annual Conference, Lubbock, 27 February 2009. (Plenary speaker, invited).

2007

Morrison, M.L. Effects on wildlife: lessons learned from other states. Wind and Wildlife Conference, Texas Wildlife Association, Abilene, Texas, 25 October 2007 (invited)

Morrison, M.L. A review of impacts of offshore wind energy development on wildlife. Annual Conference, The Wildlife Society, Tucson, Arizona, 25 September 2007.

Morrison, M.L. Gaining reliable knowledge: monitoring and HCPs. Science and Multispecies Habitat Conservation Plans, University of California, Riverside, 15-16 May 2007 (invited)

2006

Morrison, M.L. Concepts and applications in wildlife restoration. Rangeland Ecology and Management, Texas A&M University, 31 January 2006. (invited)

2005

Morrison, M.L. Concepts and applications in wildlife restoration. School of Forestry, Northern Arizona University, Flagstaff, 16 November 2005 (invited)

2004

Morrison, M.L., and M. Hurt. An adaptive management framework for wildlife restoration: Lake Tahoe Basin. Annual Conference, California Society for Ecological Restoration, 16 October, Kings Beach, CA

Morrison, M.L., and M. Hurt. Developing desired conditions for wildlife restoration. Poster presented at the 2nd Biennial Conference on Tahoe Environmental Concerns, Nevada Water Resources Association, Lake Tahoe, NV

Smallwood, K.S., and M.L. Morrison. Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. Annual Conference, California Society for Ecological Restoration, 16 October, Kings Beach, CA

2003

Morrison, M.L. Demography and conservation of the willow flycatcher. Department of Biology, Ecology, Evolution, and Conservation Biology (EECB) Seminar, University of Nevada, Reno (invited).

Morrison, M.L. Concepts of animal ecology as applied to restoration. 2003 Arid Southwest Lands Habitat Restoration Conference, Palm Springs, California (invited).

2002

Morrison, M.L. Wind power—a clean source of renewable energy vs. avian mortality at wind turbines: are there bird problems? Presenter and panel member, American Bird Conservancy, Policy Council Meeting, Washington, D.C. (invited).

Morrison, M.L. Development of a renewable energy program at UC White Mountain Research Station. California Hydrogen Business Council, Quarterly Meeting, University of California, Riverside (invited)

2001

Lynn, S., A. Averill, and M.L. Morrison. Habitat management for selected neotropical migrant songbirds in cottonwood/willow patches, lower Colorado River. Riparian Habitat and Floodplain Conference, Sacramento, California.

2000

Morrison, M.L. Predicting and preventing hantavirus infections: temporal patterns of rodent populations and hantavirus in Arizona. Seminar presented to College of Ecosystem Science and Management, Northern Arizona University, Flagstaff (invited).

1999

Morrison, M.L., and L.S. Hall. Standard terminology: toward a common language to advance ecological understanding and applications. Symposium on Predicting Species Occurrences: issues of scale and accuracy, Snowbird, Utah (invited Plenary Speaker).

Morrison, M.L., and D.C. Hahn. Cowbird parasitism in eastern and western landscapes. 69th Annual Meeting, Cooper Ornithological Society, Portland, OR (invited symposium presentation).

1998

Morrison, M.L., K.H. Pollock, A.L. Oberg, and K.C. Sinclair. Predicting the response of bird populations to wind-energy related deaths. ASME Wind Energy Symposium, 36th American Institute of Aeronautics and Astronautics (AIAA) Meeting, Reno, NV.

1997

Morrison, M.L., and L.S. Hall. Habitat relationships of amphibians and reptiles in the Inyo-White Mountains, California and Nevada. Poster presented at the Symposium on the Ecology and Management of Pinyon-Juniper Communities within the Interior West.

Morrison, M.L. Status of the southeastern Arizona longitudinal hantavirus study. 1997 Vector-borne and zoonotic diseases conference, Arizona Department of Health Services, Phoenix, Arizona.

Morrison, M.L., A.J. Kuenzi, D.E. Swann, and L.S. Hall. Dynamics of hantavirus infection in rodents in southeastern Arizona. 4th Annual Conference, The Wildlife Society, Snowmass Village, Colorado.

1996

Morrison, and L.S. Hall. The habitat concept: misused centerpiece of restoration ecology. Fifth annual meeting, California Chapter, Society for Ecological Restoration (SERCAL), Yosemite, California

Morrison, M.L., W.M. Block, L.L. Christoferson, and L.S. Hall. Linking research and management: conceptual designs and case studies from the southwest. 61st North American Wildlife and Natural Resources Conference, Tulsa, Okla.

1995

Morrison, M.L. Monitoring resource management actions: conceptual framework. Plenary Session, 28th Annual Meeting, Arizona and New Mexico Chapters, The Wildlife Society, Gallup, NM.

1994

Morrison, M.L. Designing bird inventory and monitoring programs. Presentation to wildlife biologists, Prescott National Forest, Arizona.

Morrison, M.L. Ecosystem management: measuring biotic resources. Invited presentation to the School of Renewable Natural Resources, Univ. of Arizona; workshop-planning meeting for ecosystem management at the Santa Rita Experimental Range.

1993

Morrison, M.L., and T.A. Scott. Integration of wildlife inventory-monitoring in restoration plans. Northern California Chapter, Society of Ecological Restoration, Oakland.

Morrison, M.L. Design of inventory-monitoring programs for Forest planning. Presentation

to District, Forest, and Regional wildlife biologists, Region 5, U.S. Forest Service, Fresno, California.

1992

Morrison, M.L. The study of habitat: a critical look at concepts and future directions; and How we might study animal habitat: research design and analysis. Seminars presented at the Ecology Center, Utah State University, Logan (invited speaker).

1991

Morrison, M.L. Managing our forests for looks (structure) and not for birds (floristics). Western Section, The Wildlife Society, Annual Meeting, Sacramento, Calif. (Invited lecture).

Morrison, M.L., and T.A. Scott. Developing a methodology for wildlife habitat restoration plans. Society for Ecological Restoration, Annual Meeting, Orlando, Florida.

Morrison, M.L. Components and expressions of a healthy forest: wildlife and wildlife resource requirements. 40th Annual California Forest Pest Control Council, Sacramento, CA (invited speaker).

1990

Morrison, M.L. Can a single species be used as an indicator of environmental change? Theory and tools for managing species at risk. University Extension, Univ. California, Davis. (invited lecture).

1989

Morrison, M. L. Evolution in the *Dendroica virens* group: geographic variation in *D. nigrescens*. 107th Annual Meeting of the American Ornithologists' Union, University of Pittsburgh, Pittsburgh, Penn.

Morrison, M.L., M.L. Morton, L.S. Hall, J.L. Harner, and J.J. Keane. Population biology of small mammals in the Inyo-White mountains. White Mountain Research Station Symposium III, Bishop, Calif.

Morrison, M.L. Natural history of vertebrates in the Inyo-White range. Fall Lecture Series, White Mountain Research Station, Bishop, Calif. (Invited lecture).

1988

Morrison, M. L. The design and importance of long-term ecological studies: analysis of vertebrates in the Inyo-White mountains, California. Symposium on Management of Amphibians, Reptiles, and Small Mammals in North America. Flagstaff, Ariz.

Morrison, M. L. Dilemmas in wildlife management: worthless trees and the birds that use them. Invited presentation, Special Lecture in Zoology, Southern Illinois University, Carbondale.

1987

Morrison, M. L. Design for a long-term ecological study: birds, small mammals, amphibians, and reptiles. Fall Lecture Series, White Mountain Research Station, Bishop, Calif.

1986

Morrison, M. L., D. L. Dahlsten, S. M. Tait, and D. L. Rowney. Prey availability and the impact of birds on scale insects during winter. 104th Annual Meeting of the American Ornithologists' Union, Mississippi State Univ., Mississippi State.

1985

Morrison, M. L. Seasonal use of tree species by forest birds. Museum of Vertebrate Zoology (invited presentation), University of California, Berkeley.

Morrison, M. L., I. C. Timossi, K. A. With, and P. N. Manley. Use of tree species by forest birds during winter and summer. Fourth Joint Meeting of the Wilson Ornithological Society and the Cooper Ornithological Society, University of Colorado, Boulder.

Morrison, M. L. Seasonal variations in habitat use and foraging behavior by forest birds. Division of Wildlife and Fisheries, Univ. California, Davis (invited presentation for Proseminar Series).

1983

Morrison, M. L., and E. C. Meslow. Impacts of forest herbicides on wildlife: toxicity and habitat alteration. 48th North American Wildlife and Natural Resources Conference, Kansas City, Missouri.

Morrison, M. L., and J. W. Hardy. Hybridization between the Townsend's and Hermit warblers. 53rd Annual Meeting of the Cooper Ornithological Society, Albuquerque, N.M.

1982

Morrison, M. L. Effects of the herbicide glyphosate on avian community structure. Northwest Section of the Wildlife Society, Juneau, Alaska.

Morrison, M. L., R. W. Mannan, and G. L. Dorsey. Effects of number and placement of circular plots on estimates of avian density and diversity. Symposium on Estimating the Numbers of Terrestrial Birds, Asilomar, Calif.

1978

Morrison, M. L., E. Shanley, Jr., and R. D. Slack. Reproductive success and nesting ecology of the Olivaceous Cormorant in Texas. 48th Annual Meeting of the Cooper Ornithological Society, Arizona State Univ., Tempe.

Morrison, M. L., and L. F. Kiff. Post-DDT shorebird eggshell thickness in North America. 5th Annual Meeting of the Pacific Seabird Group, Asilomar, Calif.

1977

Morrison, M. L., and R. D. Slack. The Olivaceous Cormorant: Its distribution and population trends. Texas Academy of Sciences, Baylor Univ., Waco.

1976

Morrison, M. L., and R. D. Slack. Status of the Olivaceous Cormorant in Texas. Texas Cooperative Fish-eating Bird Conference, Texas Parks and Wildlife Dept., Austin.

PROFESSIONAL ORGANIZATIONS

The Wildlife Society (National; Southwest Section; Texas Chapter)
Certified Wildlife Biologist

Society for Ecological Restoration

American Society of Mammalogists

Cooper Ornithological Society (Life Member)

American Ornithologists' Union (Elected Fellow)

Southwestern Association of Naturalists

ELECTIONS AND AWARDS

2013 USDA Forest Service, Inyo National Forest, Certificate of Appreciation for assisting in conservation efforts for bat habitats

2011 USDA Forest Service, Rocky Mountain Research Station, Publication Award for "Technology Transfer Publication", *Wildlife Study Design*, Springer-Verlag.

2009 The Wildlife Society, Texas Chapter, Outstanding Technical Publication award for "Wind energy development and wildlife conservation: challenges and opportunities" (Kuvlesky, Jr., W.P., L.A. Brennan, M.L. Morrison, K.K. Boydston, B.M. Ballard, and F.C. Bryant. *Journal of Wildlife Management* 71:2487-2498)

2007 Ecological Society of America, Sustainability Science Award, for co-authorship on the paper, "The ecology and evolutionary history of an emergent disease: Hantavirus Pulmonary Syndrome" (Yates, T.L., J.N. Mills, C.A. Parmenter, T.G. Ksiazek, R.R. Parmenter, J.R. Vande Castle, C.H. Calisher, S.T. Nichol, K.D. Abbott, J.C. Young, M.L. Morrison, B.J. Beaty, J.L. Dunnum, R.J. Baker, J. Salazar-Bravo, and C.J. Peters, 2002, *BioScience* 52:989-998).

Best State and Local Project, Natural Resources Council of America, Washington, DC, for *Impact of Wind Energy Facilities on Wildlife and Wildlife Habitat* (The Wildlife Society); 2008, co-author on publication.

Certificate of Appreciation, The Wildlife Society, service as Editor-in-Chief, *Journal of Wildlife Management*, 2005-2007.

Certificate of Appreciation, USDA Forest Service, participation in Resource Core Groups for Lake Tahoe Basin (Pathways 2007), 2003-2006 (award 2007)

Fellow, American Ornithologists' Union; elected 2005

President, Western Section, The Wildlife Society (2000-2001)

President-elect, Western Section, The Wildlife Society (1999-2000)

Scholarly Achievement Award, School of Renewable Natural Resources, Univ. of Arizona, Tucson (for "Wildlife-habitat Relationships", 1992) (1995)

Elected to Board of Directors, Cooper Ornithological Society (term 1991-1993)

Best Edited Book Award for 1986 (with Jared Verner and C. John Ralph), "Wildlife 2000: modeling habitat relationships of terrestrial vertebrates," Univ. of Wisconsin Press; The Wildlife Society.

Secretary, Cooper Ornithological Society, (1985-1989)

Elective Member, American Ornithologists' Union (selected by Elected Members and Fellows, 1984)

President, San Francisco Bay Area Chapter, The Wildlife Society (1984)

President-elect, San Francisco Bay Area Chapter, The Wildlife Society (1983)

OTHER ACTIVITIES

(Excludes University-level committees)

Member, Interagency Task Force on Economic Growth and Endangered Species, State of Texas (2011 to 2012)

Member, Scientific Review Committee, Altamont Pass Wind Resource Area (appointed by Alameda County, CA, Board of Supervisors; 2011 to date)

Chair, Cottam Student Award Committee, Texas Chapter of The Wildlife Society (2011)

Faculty Participant, Ph.D. component of the Alfred P. Sloan Foundation Minority Ph.D. Program (2008 to date)

Member, Endangered Species Act (ESA) Credit System Working Group, State of Texas (2006-2010)

Session Chair, 42nd Annual Meeting of the Texas Chapter of The Wildlife Society (2007)

Member, Resources Core Group, Pathways 2007, USDA Forest Service, Lake Tahoe Basin Management Unit, California (2004-2006)

Member, Strategic Planning Committee, The Wildlife Society (2006)

Member, Wind-energy Technical Review Committee, The Wildlife Society (2005-06)

Member, Wildlife Publication Awards Committee, The Wildlife Society (2004-06)

Chair, Program Committee, Annual Conference of The Wildlife Society, 2001 (Reno, NV)(2000-2001)

Member, San Clemente Loggerhead Shrike Recovery Team, appointed by US Fish and Wildlife Service, San Diego (1999 to 2001).

Co-leader, Greater Sandhill Crane Recovery Team, California Department of Fish and Game (1998 to 2001).

Member, Hawaiian Hawk ('Io) Recovery Team Working Group, appointed by US Fish and Wildlife Service, Hawaii (1997 to 2001).

Member, Sierra Nevada Willow Flycatcher Working Group, USDA Forest Service (1997 to 2010).

Member, Publications Awards Committee, The Wildlife Society, 1998.

Member, Scientific Program Committee, 1998 annual meeting, Western Section of The Wildlife Society, Sacramento, CA

Chair, committees on local arrangements and scientific program, Partners In Flight conference, Cowbird management in western landscapes, Sacramento, CA (23-25 Oct. 1997)

Scientific Advisor, The Maya Project, The Peregrine Fund, Boise, Idaho (1995-1996)

Member, Financial Committee, Cooper Ornithological Society (1994 to 1996)

Co-chair, Committee on Local Arrangements, Annual Meeting of the Cooper Ornithological Society, Sacramento, CA (April 1993)

Member, Scientific Program Committee, 1st Annual Meeting of The Wildlife Society (1993-94)

Member, Oak woodland-rangeland advisory group, Calif. Dept. Forestry and Fire Protection (1991)

Member, Publications Committee, The Wildlife Society (1990 to 1992)

Member, Scientific Program Committee, and Chair, Symposium Committee, 1990 Joint American Ornithologists' Union-Cooper Ornithological Society Annual Meeting, Los Angeles, CA (27-30 June 1990)

Member, Snag Advisory Committee, Pacific Southwest Forest and Range Expt. Station, Fresno, Calif. (1989 to 1992)

Member, Conservation Committee, American Ornithologists' Union (1988 to 1993)

Chair, Scientific Program Committee, and Co-chair, Committee on Local Arrangements,

58th Annual Meeting of the Cooper Ornithological Society, Pacific Grove (Asilomar), CA (18-21 March 1988)

Member, Research Review Committee, Golden Gate Raptor Migration Observatory (sponsored by the Golden Gate National Park Assn. in cooperation with the National Park Service; 1987 to 1988)

Panel member, oak woodland-wildlife relationships, training session on hardwood-range management, U.C. Cooperative Extension, San Joaquin Experimental Range (21 May 1987)

Chair, Field Trip Committee, and Member, Program Committee, 56th Annual Meeting of the Cooper Ornithological Society, University of California, Davis (8-11 September 1986)

Member, Program Committee, 54th Annual Meeting of the Cooper Ornithological Society, Humboldt State University, Arcata, California (19-23 June 1984)

Session Chairman, 54th Annual Meeting of the Cooper Ornithological Society, Humboldt State University, Arcata, California (19-23 June 1984)

Member, California Interagency Wildlife Task Group (1983 to 1993); Chair, Model Validation Subcommittee (1986)

Publications Committee, Cooper Ornithological Society: Member, 1983 to 1989; Chair, 1983-85

Member, Steering Committee, Symposium--Wildlife 2000: modeling habitat relationships of terrestrial vertebrates. Lake Tahoe, California (1983-1984)

Session Chairman, 53rd Annual Meeting of the Cooper Ornithological Society, Albuquerque, NM (20-21 May 1983)

Curriculum Vitae

VERNON C. BLEICH

Eastern Sierra Center for Applied
Population Ecology (ESCAPE)

5546 Falconer Drive
Bismarck, ND 58504
701-751-3303 (O)
760-937-5020 (C)
vcbleich@gmail.com



Personal Interests:

Hockey (I am a former goaltender), family life, banjo, autoharp, gardening, hunting, and fishing.

Professional Goals:

To help ensure the persistence of populations of large mammals and their habitats through the study of their ecology and behavior, to apply that knowledge in meaningful conservation efforts, and to impart that knowledge through professional activities including publications, teaching, and other public contacts.

Education:

Ph.D. University of Alaska Fairbanks (Wildlife Biology, 1993). Thesis: "Sexual Segregation in Desert-Dwelling Mountain Sheep."

M.A. California State University, Long Beach (Biology, 1973). Thesis: "Ecology of Rodents at the Seal Beach Naval Weapons Station, Fallbrook Annex, San Diego County, California."

B.S. California State University, Long Beach (Zoology, 1970).

Professional Background:

Senior Conservation Scientist, Eastern Sierra Center for Applied Population Ecology (2007 – present). I provide expertise on natural resource conservation and management issues, particularly as they relate to large mammals in desert, mountain, and plains environments.

Senior Environmental Scientist, California Department of Fish and Game (2001 – 2008; now retired). I served as the project leader for the Sierra Nevada Bighorn Sheep Recovery

Program, a project to conserve mountain sheep in that range and restore them to formerly occupied habitats; I continued to function as the Regional Large Mammal and Desert specialist, with an emphasis on mountain sheep and mule deer in southeastern California. I also served as chair of the Sierra Nevada Bighorn Sheep Scientific Advisory Group, and served on the Peninsular Bighorn Sheep Recovery Team.

Senior Wildlife Biologist, California Department of Fish and Game (1999 – 2001). I served as the Regional Large Mammal and Desert Specialist, with an emphasis on mountain sheep and mule deer in southeastern California.

Senior Wildlife Biologist, California Department of Fish and Game (1993 – 1999). I served as the Regional Large Mammal Specialist and supervised the activities of 5 journeyman wildlife biologists in eastern California. Emphasis species included mountain sheep, mule deer, pronghorn, tule elk, and sage grouse in eastern California.

Associate Wildlife Biologist, California Department of Fish and Game (1986 – 1993). I served as the Regional mountain sheep specialist, and supervised the activities of 5 journeyman wildlife biologists in eastern California. Emphasis species included mountain sheep, mule deer, pronghorn, tule elk, and sage grouse in eastern California.

Project Leader, California Department of Fish and Game, Federal Aid in Wildlife Restoration Project W-26-D (1978 – 1986). I supervised 2 technicians, and planned and implemented habitat management projects designed to benefit waterfowl, sage grouse, mule deer, and mountain sheep in eastern California.

Assistant Wildlife Biologist, California Department of Fish and Game (1975 – 1978). I was an Area Biologist responsible for management of mule deer, mountain sheep, and the Endangered Stephens' kangaroo rat, as well as for environmental review activities in Riverside and San Bernardino counties, California.

Junior Aquatic Biologist, California Department of Fish and Game (1974 – 1975). I was responsible for fisheries management activities, with an emphasis on wild trout and the Endangered unarmored three-spined stickleback in Los Angeles and San Bernardino counties, California.

Park Ranger, Department of Recreation, City of Long Beach, California (1970 – 1973). I was responsible for public education activities, routine patrol, and coordination with other law enforcement agencies in El Dorado Regional Park, Long Beach, California.

Academic Appointments:

Research Professor, Department of Natural Resources and Environmental Science, University of Nevada, Reno (2007 – Present).

Affiliate Faculty, Department of Biological Sciences, Idaho State University, Pocatello, Idaho (2005 – Present).

Senior Research Associate, Institute of Arctic Biology, University of Alaska Fairbanks, Fairbanks, Alaska (1998 – Present).

Affiliate Assistant Professor of Wildlife Ecology, Department of Biology and Wildlife, University of Alaska Fairbanks, Fairbanks, Alaska (1993 – 1998).

Research Associate, Institute of Arctic Biology, University of Alaska Fairbanks, Fairbanks, Alaska (1993 – 1998).

Adjunct Assistant Professor of Natural Resource Science, Department of Natural Resource Science, University of Rhode Island, Kingston (1992 – 1994).

Instructor, Mt. San Jacinto College, San Jacinto, California (1976 – 1986).

Assistant Professor, Department of Biology, Rio Hondo College, Whittier, California (1973 – 1974).

Teaching Assistant, California State University, Long Beach (1972 – 1973).

Graduate Research Assistant, California State University, Long Beach (1970–1972).

Graduate Student Supervision:

Chair of Graduate Committee:

Kevin L. Monteith (Ph.D.), Reproductive ecology of migratory and resident mule deer in the eastern Sierra Nevada, California. Idaho State University, Pocatello. Graduated July 2011. Present position: Post-doctoral Researcher, Wyoming Cooperative Fish and Wildlife Research Unit. Co-chair with Dr. R. T. Bowyer.

Michael W. Oehler (M.S.), Ecology of mountain sheep: effects of mining and precipitation. University of Alaska Fairbanks. *Graduated December 1999*. Current position: Wildlife Biologist, National Park Service, Theodore Roosevelt National Park, Medora, North Dakota. Co-chair with Dr. R. T. Bowyer.

Becky M. Pierce (Ph.D.), Predator-prey dynamics between mountain lions and mule deer: effects on distribution, population regulation, habitat selection and prey selection. University of Alaska Fairbanks. *Graduated May 1999*. Current position: Associate Wildlife Biologist, California Department of Fish and Game, Bishop, California. Co-chair with Dr. R. T. Bowyer.

Graduate Committee Membership:

Cody J. McKee (M.S.), Ecology of mule deer in the eastern Mojave Desert, California. University of Nevada, Reno (Graduation expected December 2011).

Jeffrey T. Villepique (Ph.D.), Interactions between mountain lions and mountain sheep: an assessment of forage benefits and predation risk. Idaho State University, Pocatello (Graduation expected December 2011).

Sabrina Morano (Ph.D.), Reproductive biology of mule deer in the White Mountains, Inyo and Mono counties, California. University of Nevada, Reno (Graduation expected June 2012).

Jericho C. Whiting (Ph.D.), Behavior and ecology of reintroduced Rocky Mountain bighorn sheep. Idaho State University, Pocatello. *Graduated December 2008*. Current position: Wildlife Biologist, Idaho National Laboratory, Twin Falls.

Cody A. Schroeder (M.S.), Habitat selection by mountain sheep: forage benefits or risk of predation? Idaho State University, Pocatello. *Graduated September 2007*. Current position: Doctoral Student, University of Nevada, Reno.

Jason P. Marshal (Ph.D.), Foraging ecology and water relationships of mule deer in a Sonoran Desert environment. University of Arizona, Tucson. *Graduated May 2005*. Current position: Senior Lecturer, University of the Witwatersrand, South Africa.

Heather E. Johnson (M.S.), Antler breakage in tule elk in Owens Valley, California: nutritional causes and behavioral consequences. University of Arizona, Tucson. *Graduated January 2004*. Current position: Mammal Research Biologist, Colorado Division of Wildlife, Fort Collins.

Jennifer L. Rechel (Ph.D. [Geography]), Influence of neighborhood effects and friction surfaces on the spatial distribution and movement strategies of desert-dwelling mountain sheep (*Ovis canadensis*). University of California, Riverside. *Graduated August 2003*. Current position: Wildlife Biologist, U.S. Forest Service, Pacific Southwest Forest and Range Experiment Station, Riverside, California.

Holly B. Ernest (Ph.D.), Ecological genetics of mountain lions (*Puma concolor*) in California. University of California, Davis. *Graduated December 2001*. Current position: Research Geneticist, School of Veterinary Medicine, University of California, Davis.

Esther S. Rubin (Ph.D.), The ecology of bighorn sheep (*Ovis canadensis*) in the peninsular ranges of California. University of California, Davis. *Graduated December 2000*. Current position: Research Biologist, Arizona Game and Fish Department, Phoenix, Arizona.

Nancy G. Andrew (M.S.), Demography and habitat use of desert-dwelling mountain sheep in the East Chocolate Mountains, Imperial County, California. University of Rhode Island, Kingston. *Graduated May 1994*. Current position: Associate Wildlife Biologist, California Department of Fish and Game.

Awards and Honors:

Honorary Lifetime Membership, 2010 (in recognition of long and continuing service to the Society for the Conservation of Bighorn Sheep)

Wild Sheep Biologist Wall of Fame Award, 2009 (in recognition of significant contributions to the conservation of wild sheep in North America) (Wild Sheep Foundation)

Lifetime Achievement Award, 2008 (In recognition of contributions toward the conservation of mountain sheep in California) (California Chapter of the Foundation for North American Wild Sheep)

Honor Plaque, 2007 (Group Award, in recognition of outstanding contributions toward the recovery of mountain sheep in the Sierra Nevada) (Desert Bighorn Council)

State Statesman Award, 2006 (In recognition of outstanding contributions to the wild sheep of California) (Foundation for North American Wild Sheep)

Trail Blazer Award, 2004 (In recognition of efforts on behalf of mountain sheep conservation in California) (California Chapter of the Foundation for North American Wild Sheep)

Director's Achievement Award, 2004 (In recognition of editorial services for *California Fish and Game* (California Department of Fish and Game)

Annual Achievement Award, 2004 (In recognition of conservation of mule deer and their habitats) (Southern California Chapter, California Deer Association)

Alumni Achievement Award for Professional Excellence, 2002 (University of Alaska Alumni Association)

Outstanding Alumnus Award, 2002 (College of Science, Engineering, and Mathematics, University of Alaska Fairbanks)

Sustained Superior Accomplishment Award, 2002 (California Department of Fish and Game)

The Desert Ram Award, 2001 (Desert Bighorn Council)

Outstanding Publication Award for a Monograph, 1998 (The Wildlife Society)

Award of Appreciation, 1998 (San Fernando Valley Chapter of Safari Club International, CA)

Professional Membership, Boone and Crockett Club, 1998 (Boone and Crockett Club)

Certificate of Appreciation, 1997 (Society for the Conservation of Bighorn Sheep)

"Ol' Irongut" Award, 1996 (California Department of Fish and Game, Division of Air Services)

Resources Agency/University of California Fellowship, 1996 (Sponsored jointly by the California Resources Agency and the University of California, Davis)

Director's Achievement Award, 1992 (California Department of Fish and Game)

Outstanding Biology Department Alumnus, 1988 (California State University, Long Beach)

Professional of the Year, 1985 (Western Section of The Wildlife Society)

California Wildlife Officer of the Year, 1984 (Shikar-Safari Foundation)

Award of Honor, 1984 (Society for the Conservation of Bighorn Sheep)

Honorary Lifetime Membership, 1984 (Banning [California] Sportsman's Club)

Professional and Fraternal Memberships:

American Society of Mammalogists (Life Member)
The Boone and Crockett Club (Professional Member)
The Wildlife Society
Society for Conservation Biology
Southwestern Association of Naturalists
Wild Sheep Foundation
National Rifle Association
California Chapter, Foundation for North American Wild Sheep
Society for the Conservation of Bighorn Sheep
Minnesota-Wisconsin Chapter, Foundation for North American Wild Sheep

Licenses and Certifications:

California Community College Credential (# 45476, Lifetime)
State of California Blaster's License (# 2087)
Certified in Wildlife Capture Techniques (California Department of Fish and Game)
Certified Wildlife Biologist (1981 – The Wildlife Society)
California Hunter Safety Instructor (# 1984)
Flying in the Wire and Obstruction Environment (2010 - Utilities Aviation Specialists)

Other Professional Activities:

Editorial Activities:

Editor-in-Chief, *California Fish and Game* (2010 – present)

Associate Editor, *California Fish and Game* (1995 – 2009)

Editor, *Transactions of the Western Section of The Wildlife Society* (1988)

Associate Editor, *Transactions of the Western Section of The Wildlife Society* (1986–87)

Reviewer for Journals:

Conservation Biology, Journal of Wildlife Management, Wildlife Society Bulletin, Journal of Mammalogy, The Condor, California Fish and Game, Transactions of the Western Section of the Wildlife Society, Western North American Naturalist, Desert Bighorn Council Transactions, Southwestern Naturalist, Proceedings of the Northern Wild Sheep and Goat Council, Journal of Wildlife Diseases, Great Basin Naturalist, Bulletin of the Southern California Academy of Sciences, Journal of Zoology (London), Vida Silvestre Neotropical, Wildlife Biology, Wildlife Monographs, European Journal of Wildlife Research, Biological Conservation, Journal of Arid Environments (An average of about 12 reviews per year).

Other Activities:

2008 – Present: Member, Big Game Records Committee, Boone and Crockett Club

2007 – Present: Advisory Board Member, Texas Bighorn Society

2007 – Present: Science Advisor, Society for the Conservation of Bighorn Sheep

2006 – Present: Member, *Ad Hoc* Committee on Professional Membership, Boone and Crockett Club.

1998 – 2002: Coach and member of Board of Trustees, Sierra Roller Hockey League.

1995–96: Vice Chairman, The Desert Bighorn Council.

1994–98: Member, Board of Directors, The Wildlife Forensic DNA Foundation.

1993 – Present: Member, Professional Resource Advisory Committee, Foundation for North American Wild Sheep.

1991: Member, Committee on Support of Symposia and Conferences, The Wildlife Society.

1989–1993: Member, Board of Trustees, Friends of the Eastern California Museum; Vice-chairman, 1991–1992; Chairman, 1993.

1987–1988: Chairman, The Desert Bighorn Council.

1988: Co-chairman, Wildlife Water Development Symposium, Western Section of The Wildlife Society.

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Monteith, K. M., **V. C. Bleich**, T. R. Stephenson, B. M. Pierce, M. M. Conner, J. G. Kie, and R. T. Bowyer. *In review*. Life history characteristics of mule deer: effects of nutrition in a variable environment. Wildlife Monographs.

Holl, S. A., **V. C. Bleich**, and B. W. Callenberger. *In review*. Effects of fire regimes on the abundance of bighorn sheep in the San Gabriel Mountains. Journal of Fire Ecology.

Loft, E. R., and **V. C. Bleich**. *In review*. An historical perspective on deer ranges in California: terminology and its relevance to wildlife conservation. California Fish and Game.

Monteith, K. L., R. A. Long, **V. C. Bleich**, J. R. Heffelfinger, P. R. Krausman, and R. T. Bowyer. *In review*. Size of horn-like structures in trophy ungulates: effects of climate, culture, or harvest? Wildlife Monographs.

Grovenburg, T., R. Klaver, C. Jacques, T. Brinkman, C. Swanson, C. DePerno, K. Monteith, J. Sievers, **V. Bleich**, J. Kie, and J. Jenks. *In review*. Influence of landscape characteristics and ungulate demography on retention of expandable radiocollars. Wildlife Society Bulletin.

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Marshal, J. P., **V. C. Bleich**, P. R. Krausman, A. Neibergs, M. L. Reed, and N. G. Andrew. *In press*. Habitat use and diets of mule deer and feral ass in the Sonoran Desert. Southwestern Naturalist.

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Presentations at Professional Meetings

- 2011 Survival patterns of mule deer in an on-going habitat manipulation study in Mojave National Preserve. Annual Meeting of the Nevada Chapter of The Wildlife Society Symposium, Reno, Nevada. (With C. McKee and K. M. Stewart; *abstract published*)

Top-down versus bottom-up forcing: evidence from mountain lions and mule deer. Xx Annual Meeting of the American Society of Mammalogists, Portland, Oregon. (With Becky M. Pierce, R. Terry Bowyer, and Kevin L. Monteith; *abstract published*).

Timing of seasonal migration in mule deer: effects of climate, plant phenology, and life-history characteristics. Annual meeting of the American Society of Mammalogists, Portland, Oregon. (With L. L. Monteith, T. R. Stephenson, B. M. Pierce, M. M. Conner, R. W. Klaver, and R. T. Bowyer; *abstract published*).

Responses of bighorn sheep and mule deer to fire and rain in the San Gabriel Mountains. 58th Annual Meeting of the Western Section of The Wildlife Society, Riverside, California. (With S. A. Holl; *abstract published*).

Predicting body fat in bighorn sheep and assessing nutritional status of populations. 51st Meeting of the Desert Bighorn Council, Laughlin, Nevada. (With T. R. Stephenson, R. C. Cook, K. L. Monteith, D. Walsh, E. F. Cassirer, B.J. Gonzales, M. W. Overstreet, and D. G. Whittaker; *abstract published*).

How do we keep sheep on the mountain? Mitigating habitat loss, modification, and fragmentation [panel discussion]. 51st Annual Meeting of the Desert Bighorn Council, Laughlin, Nevada. (With B. Gonzales, K. Hurley, and R. Schweinsburg).

2010 Perceived threats to wild sheep: levels of concordance among western states, provinces, and territories. 17th Biennial Symposium of the Northern Wild Sheep and Goat Council, Hood River, Oregon. *Abstract published*.

Effects of water manipulation on mule deer in Mojave National Preserve, California. 17th Annual Conference of The Wildlife Society, Snowbird, Utah, October. (With C. J. McKee, K. M. Stewart, N. Darby, and D Hughson; *abstract published*).

Integrating ecology and epidemiology to assess the risk of disease transmission at the wildlife-livestock interface: the case of Sierra Nevada bighorn sheep. 46th Annual Meeting of The Western Section of The Wildlife Society, Visalia, California. (With D. L. Clifford, B. A. Schumaker, T. R. Stephenson, M. Leonard-Cahn, B. J. Gonzales, W. M. Boyce, and J. A. K. Mazet; *abstract published*).

Sexual segregation and use of water by bighorn sheep: implications for conservation. Utah Wildlife Society Meeting, Moab, Utah. (With J. C. Whiting, R. T. Bowyer, J. T. Flinders, and J. G. Kie).

Quantitative risk assessment: what to consider. Xx Annual Meeting, xx, xx. (With T. R. Stephenson, J. A. K. Mazet, D. L. Clifford, B. A. Shumaker, M. Leonard-Cahn, B. J. Gonzales, and W. M. Boyce).xx

Sexual segregation and use of water by bighorn sheep: implications for conservation. Presented at 17th Annual Conference of The Wildlife Society, Snowbird, Utah, October

2010. With J. C. Whiting, R. T. Bowyer, J. T. Flinders, and J. G. Kie; *abstract published*).
- 2009 Using ecosystem approaches to solve health problems at the livestock-wildlife interface. American Association of Zoo Veterinarians, Tulsa, Oklahoma. (With J. Mazet, D. Clifford, P. Coppolillo, J. Erickson, T. Stephenson, V. Bleich, W. Boyce, and R. Kazwala; *abstract published*).
- The role of fire history in habitat selection in chaparral ecosystems: implications for the restoration of bighorn sheep populations. 51st Annual Meeting of the Desert Bighorn Council, Grand Junction, Colorado. (With H. E. Johnson, S. A. Holl, L. Konde, S. G. Torres, and P. R. Krausman; *abstract published*).
- Effects of fire and rain on bighorn sheep in the San Gabriel Mountains, California. 51st Annual Meeting of the Desert Bighorn Council, Grand Junction, Colorado. (With S. A. Holl; *abstract published*).
- Considerations when re-provisioning water developments for mountain sheep in desert ecosystems. 51st Annual Meeting of the Desert Bighorn Council, Grand Junction, Colorado. (With G. W. Sudmeier and G. C. Kerr; *abstract published*).
- Do we need to survey every year? Using count data for bighorn sheep to project population size forward one year in California. 51st Annual Meeting of the Desert Bighorn Council, Grand Junction, Colorado. (With M. M. Conner, T. R. Stephenson, J. D. Wehausen, and S. G. Torres; *abstract published*).
- Assessment of rangeland practices to enhance wildlife. 62nd Annual Meeting of the Society for Range Management, Albuquerque, New Mexico. (With P. R. Krausman, B. Block, D. Naugle, and M. C. Wallace; *abstract published*).
- 2008 The response of San Gabriel Mountains bighorn sheep to fire. Regional Conference of the Association for Fire Ecology, Tucson, Arizona. (With S. A. Holl and H. E. Johnson; *abstract published*).
- The response of San Gabriel Mountains bighorn sheep to fire. 55th Annual Meeting of the Western Section of the Wildlife Society, Redding, California. (With S. A. Holl, and H. E. Johnson; *abstract published*).
- Population Dynamics of a Sierra Nevada mule deer population: top-down or bottom-up regulation? Predator-Prey Symposium, Idaho State University, Pocatello, Idaho. (With B. M. Pierce, R. T. Bowyer, K. L. Monteith, and T. R. Stephenson; *abstract published*).
- Using ecosystem approaches to solve health problems at the livestock-wildlife interface. International Ecohealth Forum 2008. International Association for Ecology and Health, Merida, Mexico. (With J. Mazet, D. Clifford, P. Coppolillo, J. Erickson, T. Stephenson, W. Boyce, and R. Kazwala; *abstract published*).

- 2007 Group dynamics and timing of mating in American bison: effects of large males. Research and Creative Activities Day, Idaho State University, Pocatello, Idaho. (With R. T. Bowyer, X. Manteca, J. C. Whiting, and K.M. Stewart; *abstract published*)
- [Keynote Address] Ecology of mountain sheep: ramifications for disease transmission and population persistence. Workshop on Respiratory Disease in Mountain Sheep: Knowledge Gaps and Future Research. University of California, Davis. *Abstract published.*
- Group dynamics and timing of mating in American bison: effects of large males. 14th Annual Conference of The Wildlife Society, Tucson, Arizona. (With R. T. Bowyer, X. Manteca, J. C. Whiting, and K. M. Stewart; *abstract published*).
- Group dynamics and timing of mating in American bison: effects of large males. 87th Annual meeting of The American Society of Mammalogists, Albuquerque, New Mexico (With R. T. Bowyer, X. Manteca, J. C. Whiting, and K. M. Stewart; *abstract published*).
- Group dynamics and timing of mating in American bison: effects of large males. Annual Meeting of the Idaho Chapter of The Wildlife Society, Pocatello, Idaho. (With R. T. Bowyer, X. Manteca, J. C. Whiting, and K. M. Stewart; *abstract published*)
- Sex differences in space use and groups size of mountain sheep. Annual Meeting of the Idaho Chapter of The Wildlife Society, Pocatello, Idaho. (With C. Schroeder, R. T. Bowyer, and T. R. Stephenson; *abstract published*)
- Progress report from California. 50th Annual Meeting of the Desert Bighorn Council, Las Vegas, Nevada.
- 2006 Can GPS collars be trusted? Evaluation of location error and a method for outlier identification. 68th Annual Meeting of The American Society of Mammalogists, University of Massachusetts Amherst, Amherst, Massachusetts. (With J. T. Villepique, R. T. Bowyer, R. A. Botta, B. M. Pierce, and T. R. Stephenson; *abstract published*)
- Comparing GPS collar error: evaluation of Televilt POSREC collars and method for outlier identification. Annual Meeting of the Northwest Section of The Wildlife Society, Boise, Idaho. (With J. T. Villepique and R. T. Bowyer; *abstract published*).
- Sex differences in space use and group size of mountain sheep. 13th Annual Conference of The Wildlife Society, Anchorage, Alaska. (With C. Schroeder, T. R. Stephenson, and R. T. Bowyer; *abstract published*)
- 2005 Quality of water available to wildlife: comparisons among artificial and natural sources. 48th Annual Meeting, The Desert Bighorn Council, Alpine, Texas. (With N. G. Andrew, M. Martin, G. P. Mulcahy, A. M. Pauli, and S. S. Rosenstock; *abstract published*).

Status of bighorn sheep in California. 48th Annual Meeting, The Desert Bighorn Council, Alpine, Texas. (With C. Epps, J. D. Wehausen, and S. G. Torres).

Evaluating errors in GPS-collar locations. 48th Annual Meeting, The Desert Bighorn Council, Alpine, Texas. (With J. T. Villepique, B. M. Pierce, and R. T. Bowyer; *abstract published*).

Responses of bighorn sheep to risk of predation by mountain lions: evaluation at multiple scales. 41st Annual Meeting, Western Section of The Wildlife Society, Sacramento, California. (With J. T. Villepique, B. M. Pierce, R. T. Bowyer, and T. R. Stephenson; *abstract published*).

Modeling Sierra Nevada bighorn sheep habitat: applying resource selection functions to species recovery. 41st Annual Meeting, Western Section of The Wildlife Society, Sacramento, California. (With H. E. Johnson and T. R. Stephenson; *abstract published*).

Quality of water available to wildlife: comparisons among artificial and natural sources. 41st Annual Meeting, Western Section of the Wildlife Society, Sacramento, California. (With N. G. Andrew, G. P. Mulcahy, and A. M. Pauli; *abstract published*).

Mountain sheep in California: perspectives on the past, and prospects for the future. 41st Annual Meeting, Western Section of the Wildlife Society, Sacramento, California. *Abstract published*.

Evolutionary models for sexual segregation among ruminants: competition or polygyny? 85th Annual Meeting of the American Society of Mammalogists, Southwest Missouri State University, Springfield, Missouri. (With R. T. Bowyer, J. G. Kie, and P. S. Barboza; *abstract published*).

Evolutionary models for sexual segregation among ruminants: competition or polygyny? 41st North American Moose Conference, Whitefish, Montana. (With R. T. Bowyer, J. G. Kie, and P. S. Barboza; *abstract published*).

2004 Resource selection by mule deer in an arid environment. Wildlife Water Development Workshop: A Review of the Science, Policy, and Human Dimensions. Arizona College of Law, Tempe, Arizona. (With J. P. Marshal, P. R. Krausman, and N. G. Andrew; *abstract published*).

Retrofitting gallinaceous guzzlers: enhancing water availability and safety for wildlife. Wildlife Water Development Workshop: A Review of the Science, Policy, and Human Dimensions. Arizona College of Law, Tempe, Arizona. (With S. Nelson, P. J. Wood, H. R. Wood, and R. A. Noles; *abstract published*).

Quality of water available to wildlife: a comparison among artificial and natural sources. Wildlife Water Development Workshop: A Review of the Science, Policy, and Human

Dimensions. Arizona College of Law, Tempe, Arizona. (With N. G. Andrew, B. P. Mulcahy, and A. M. Pauli; *abstract published*).

Resource selection by mule deer in an arid environment. 9th Annual Meeting of The Wildlife Society, Calgary, Alberta. (With J. P. Marshal, P. R. Krausman, and N. G. Andrew; *abstract published*).

Responses of bighorn sheep to risk of predation by mountain lions: evaluation at multiple scales. 84th Annual Meeting of the American Society of Mammalogists, Arcata, California. (With J. T. Villepique, B. M. Pierce, R. T. Bowyer, and T. R. Stephenson; *abstract published*).

[Invited Paper] Illogical legislation: Personal perspectives on politics and promises, and the problems they've presented. Sonoran Pronghorn Workshop: Looking to the Future, Tucson, Arizona.

[Invited Paper and Keynote Address)] Mountain sheep in California: Perspectives on the past, and prospects for the future. 40th Annual Meeting, Idaho Chapter of The Wildlife Society, Moscow, Idaho; *abstract published*).

[Invited Paper] Status of recovery efforts for bighorn sheep in the Sierra Nevada. 27th Annual Convention of the Foundation for North American Wild Sheep, Reno, Nevada. (With B. M. Pierce and T. R. Stephenson).

[Invited Paper] Wildlife conservation and wilderness management are not necessarily compatible objectives. Wildlife water development and wilderness symposium. Nevada Department of Wildlife, Reno.

2003 Distribution of mule deer in relation to forage and water in the Sonoran Desert. 3rd International Wildlife Management Congress, Christchurch, New Zealand. (With J. P. Marshal, P. R. Krausman, and N. G. Andrew; *abstract published*).

[Invited Presentation] Sexual segregation among ungulates: a niche-based framework for resolving controversy. Annual Meeting of the Northwest Section of The Wildlife Society, Eugene, Oregon. (With R. T. Bowyer, J. G. Kie, and P. S. Barboza; *abstract published*).

Sexual segregation among ungulates: a niche-based framework for resolving controversy. Alaska Chapter of The Wildlife Society, Juneau, Alaska. (With R. T. Bowyer, J. G. Kie, and P. S. Barboza; *abstract published*).

2002 Effects of forage and water on distribution of mule deer in the Sonoran Desert. 5th International Deer Biology Congress, Quebec City, PQ, Canada. (With J. P. Marshal, P. R. Krausman, and N. G. Andrew; *abstract published*).

- Demographic and physiological responses of mule deer to highly variable resource abundance. 8th Annual Meeting, The Wildlife Society, Bismarck, North Dakota. (With J. P. Marshal and P. R. Krausman; *abstract published*).
- Effects of climate change on population persistence of desert-dwelling mountain sheep in California. 46th Annual Meeting, Desert Bighorn Council, Palm Springs, California (With C. W. Epps, D. R. McCullough, J. D. Wehausen, and J. L. Rechel; *abstract published*).
- Efficacy of photographic scent stations to detect mountain lions. Annual Meeting of the North Dakota Chapter of The Wildlife Society, Grand Forks, North Dakota (With E. S. Long, D. M. Fecske, J. A. Jenks, and B. M. Pierce).
- 2001 Population dynamics of mountain lions and mountain sheep in the San Gabriel Mountains, California. 8th Annual Meeting, The Wildlife Society, Reno, Nevada (With S. A. Holl and S. G. Torres; *abstract published*).
- [Invited Paper] Translocating mountain sheep: might the methods matter? 37th Annual Meeting, Western Section of the Wildlife Society, Sacramento, California (With J. R. Thompson, S. G. Torres, and G. P. Mulcahy; *abstract published*).
- [Invited Paper] Population dynamics of mountain lions and mule deer: top-down or bottom-up regulation? 37th Annual Meeting, Western Section of The Wildlife Society, Sacramento, California (With B. M. Pierce and R. T. Bowyer; *abstract published*).
- 2000 Population dynamics of mountain lions and mule deer: top-down or bottom-up regulation? Annual Meeting, Northwest Section of The Wildlife Society, Post Falls, Idaho (With B. M. Pierce and R. T. Bowyer; *abstract published*).
- Predicting body fat using ultrasonography: are the cervids similar? 39th North American Moose Conference, Whitehorse, Yukon Territory (With T. R. Stephenson, B. M. Pierce, G. P. Mulcahy, K. J. Hundertmark, and J. A. Crouse; *abstract published*).
- 1999 Social organization of mountain lions (*Puma concolor*): does a land-tenure system regulate population size? 79th Annual Meeting, American Society of Mammalogists, University of Washington, Seattle (With B. M. Pierce and R. T. Bowyer; *abstract published*).
- Prey selection by mountain lions and coyotes: effects of hunting style, body size, and reproductive status. 6th Annual Conference, The Wildlife Society, Austin, Texas. (With B. M. Pierce and R. T. Bowyer; *abstract published*).
- The role of mountain lions in shaping habitat selection by mule deer. Western States and Provinces Deer and Elk Workshop, Salt Lake City, Utah. (With B. M. Pierce and R. T. Bowyer; *abstract published*).

- Development, characterization, and use of forensic-quality tetranucleotide microsatellite loci to develop a population profile of California mule/blacktail deer. 35th Annual Meeting, Western Section of the Wildlife Society, Monterey, California. (With G. Sadowsky, P. Bienvenue, K. Jones, K. Levine, J. Banks, R. Wayne, and B. Pierce; *abstract published*).
- The role of mountain lions in shaping habitat selection by mule deer. Annual Meeting, Alaska Chapter of The Wildlife Society, Fairbanks, Alaska. (With B. M. Pierce and R. T. Bowyer; *abstract published*).
- [Invited Paper] Predation and its implications for translocations of mountain sheep. 25th Annual Convention, Foundation for North American Wild Sheep, Reno, Nevada.
- The role of mountain lions in shaping habitat selection by mule deer. Annual Meeting, Oregon Chapter of The Wildlife Society, Lincoln City, Oregon. (With B. M. Pierce and R. T. Bowyer; *abstract published*).
- The role of mountain lions in shaping habitat selection by mule deer. Symposium on Women in Science, University of Alaska, Fairbanks, Alaska. (With B. M. Pierce and R. T. Bowyer; *abstract published*).
- 1998 [Invited Paper] Patterns of predator evasion in mountain ungulates: responses of mule deer and mountain sheep to encounters with coyotes. 2nd Annual Meeting, The Mule Deer Foundation, Sacramento, California.
- Why would the world's largest population of Nelson's bighorn sheep suddenly collapse? 34th Annual Meeting, Western Section of The Wildlife Society, Sacramento, California. (With S. A. Holl and S. G. Torres; *abstract published*).
- Patterns of predator evasion in mountain ungulates: responses of mountain sheep and mule deer to encounters with coyotes. 34th Annual Meeting, Western Section of The Wildlife Society, Sacramento, California; *abstract published*).
- Reduced competition with mates and offspring: cause or consequence of sexual segregation in mountain sheep? 34th Annual Meeting, Western Section of The Wildlife Society, Sacramento, California. (With R. T. Bowyer and J. D. Wehausen; *abstract published*).
- 1997 [Invited Paper] Sexual segregation in mountain sheep: resources and predation! Special Symposium on Sexual Segregation in Ungulates, 4th Annual Meeting of The Wildlife Society, Snowmass, Colorado. (With R. T. Bowyer and J. D. Wehausen; *abstract published*).
- Characteristics of mule deer preyed upon by mountain lions in the eastern Sierra Nevada. Western States and Provinces Deer and Elk Workshop, Nogales, Arizona. (With B. M. Pierce; *abstract published*).

[Invited Paper] Sexual segregation in ruminants: evolution, definitions, and competing hypotheses. Special Symposium on Sexual Segregation in Ungulates, 4th Annual Meeting of The Wildlife Society, Snowmass, Colorado. (With R. T. Bowyer and J. G. Kie; *abstract published*).

Mountain lion migration and territoriality in response to distribution of prey. 4th Annual Meeting of The Wildlife Society, Snowmass, Colorado. (With B. M. Pierce, R. T. Bowyer, and J. D. Wehausen; *abstract published*).

A weighted optimal path analysis to identify multiple movement corridors between populations of desert-dwelling mountain sheep (*Ovis canadensis*). 4th Annual Meeting of The Wildlife Society, Snowmass, Colorado. (With J. L. Rechel; *abstract published*).

[Invited Paper] Survivorship and cause-specific mortality among mule deer populations in the western Great Basin. Inaugural Annual Meeting, The Mule Deer Foundation, Sacramento, California.

[Invited Paper] Effects of mountain lions and other factors on selected deer populations in California and Nevada. Annual Meeting, California Central Coast Chapter of The Wildlife Society, San Luis Obispo, California.

1996 Error associated with aerial telemetry using LORAN-C: effects of geographic location and elevation. 77th Annual Meeting, American Society of Mammalogists, Grand Forks, North Dakota. (With M. W. Oehler, Sr., and R. T. Bowyer; *abstract published*)

A device to safely remove immobilized mountain lions from trees and cliffs. 5th Mountain Lion Workshop, San Diego, California. (With J. L. Davis, C. B. Chetkiewicz, G. Raygorodetsky, B. M. Pierce, J. W. Ostergard, and J. D. Wehausen; *abstract published*).

Mortality of mule deer in the western Great Basin: the role of predation by mountain lions. 5th Mountain Lion Workshop, San Diego, California. (With T. J. Taylor and B. M. Pierce; *abstract published*).

Feeding habits of mountain lions investigated using remote photography at cached prey sites. 5th Mountain Lion Workshop, San Diego, California. (With B. M. Pierce, C. B. Chetkiewicz, and J. D. Wehausen; *abstract published*).

[Invited Paper] Visibility bias and tule elk: developing a sightability model for the Owens Valley. Workshop on Monitoring Wildlife Populations, 32nd Annual Meeting, Western Section, The Wildlife Society, Sparks, Nevada; *abstract published*).

An improved fence for wildlife water sources. 40th Annual Meeting, Desert Bighorn Council, Holtville, California. (With N. G. Andrew and L. M. Lesicka; *abstract published*).

- [Invited paper] Summary of translocations of *Ovis canadensis californiana* in California. 10th Biennial Meeting, Northern Wild Sheep and Goat Council, Silverthorne, CO. (With J. D. Wehausen, S. G. Torres, and T. A. Swank).
- 1995 [Invited Paper] Restoration of mountain sheep populations in California. Symposium on the Rehabilitation of Desert Ecosystems, Barstow, California; *abstract published*.
- [Invited Paper] Metapopulation theory and mountain sheep: implications for conservation. 46th Arctic Division Science Conference, American Association for the Advancement of Science, Fairbanks, Alaska; *abstract published*.
- Feeding habits of mountain lions investigated using remote photography at cached prey sites. 76th Annual Meeting, American Society of Mammalogists, Burlington, Vermont. (With B. M. Pierce, C. B. Chetkiewicz, and J. D. Wehausen; *abstract published*).
- Metapopulation theory and its implications for the conservation of desert-dwelling mountain sheep. 39th Annual Meeting, Desert Bighorn Council, Alpine, Texas. (With J. D. Wehausen, R. R. Ramey II, and J. L. Rechel; *abstract published*).
- Migration incentives for female mountain sheep. 39th Annual Meeting, Desert Bighorn Council, Alpine, Texas. (With J. R. Jaeger, J. D. Wehausen, and C. L. Douglas; *abstract published*).
- 1994 [Invited Paper] Metapopulation theory and desert-dwelling mountain sheep: implications for management and conservation. Inaugural Annual Meeting, The Wildlife Society, Albuquerque, New Mexico. (With J. D. Wehausen, R. R. Ramey II, and J. L. Rechel; *abstract published*).
- A comparison of helicopter survey results with empirically derived population estimates of mountain sheep. 38th Annual Meeting, Desert Bighorn Council, Moab, Utah. (With J. D. Wehausen; *abstract published*).
- Hunter harvest of mountain sheep in California (1987–1993): an analysis of population parameters, hunter harvest, and effort. 38th Annual Meeting, Desert Bighorn Council, Moab, Utah. (With S. G. Torres; *abstract published*).
- An ecological profile of desert-dwelling mountain sheep in the Chocolate Mountains, California. 75th Annual Meeting, American Society of Mammalogists, Washington, D.C. (With N. G. Andrew and P. V. August; *abstract published*).
- Power and peril at the crossroads of technology: use of GIS and radio telemetry for the study of wildlife ecology. Inaugural Annual Meeting, The Wildlife Society, Albuquerque, New Mexico. (With M. C. Nicholson, N. G. Andrew, and P. V. August; *abstract published*).

- 1993 Limits in the resolution of LORAN-C for aerial telemetry studies. 37th Annual Meeting, Desert Bighorn Council, Mesquite, Nevada. (With J. R. Jaeger, J. D. Wehausen, and C. L. Douglas; *abstract published*).
- Preliminary tests of a mountain sheep habitat model using a geographic information system. 8th Biennial Conference, Northern Wild Sheep and Goat Council, Cody, Wyoming. (With M. C. Nicholson, A. T. Lombard and P. V. August; *abstract published*).
- The use of geographic information systems to evaluate habitat models for mountain sheep. 36th Annual Meeting, Desert Bighorn Council, Bullhead City, Arizona. (With M. C. Nicholson, A. T. Lombard and P. V. August; *abstract published*).
- 1992 Bo-Peep revisited: what affects the responses of mountain sheep to helicopter surveys? 36th Annual Meeting, Desert Bighorn Council, Bullhead City, Arizona. (With R. T. Bowyer, A. M. Pauli, M. C. Nicholson and R. W. Anthes; *abstract published*).
- Using geographic information system technology to evaluate mountain sheep habitat models. 28th Annual Meeting, Western Section of the Wildlife Society, San Diego, California. (With M. C. Nicholson, A. T. Lombard and P. V. August; *abstract published*).
- Dominance and the distribution of *Dipodomys*: interspecific aggression in *D. stephensi*, an endangered species. 28th Annual Meeting, Western Section of the Wildlife Society, San Diego, California. (With M. V. Price; *abstract published*).
- Using geographic information system technology to evaluate mountain sheep habitat use. 72nd Annual Meeting, American Society of Mammalogists, Kansas State University, Manhattan. (With M. C. Nicholson, A. T. Lombard, and P. V. August; *abstract published*).
- 1991 Managing mountain sheep: the costs of translocating *Ovis canadensis*. 27th Annual Meeting, Western Section of the Wildlife Society, Sacramento, California; *abstract published*).
- Status of bighorn sheep in California, 1990. 35th Annual Meeting, Desert Bighorn Council, Las Cruces, New Mexico.
- Effects of helicopter surveys on movements of mountain sheep. 35th Annual Meeting, Desert Bighorn Council, Las Cruces, New Mexico. (With R. T. Bowyer, A. M. Pauli, R. L. Vernoy and R. W. Anthes; *abstract published*).
- [Invited Paper] What is a minimum viable population? 35th Annual Meeting, Desert Bighorn Council, Las Cruces, New Mexico. (With P. R. Krausman, J. A. Bailey, D. A. Armentrout, and R. R. Ramey II).

- History of water development for managing wildlife habitat, Inyo and Mono counties, California. 4th Annual University of California White Mountain Research Station Symposium, Bishop; *abstract published*).
- Costs associated with translocating mountain sheep, *Ovis canadensis*. Symposium on Managing Wildlife in the Southwest, Tucson, Arizona (*abstract published*).
- Interagency coordination and the restoration of wildlife populations. Yosemite National Park Centennial Symposium, Concord, California (*abstract published*).
- Responses of mountain sheep to helicopter surveys. 26th Annual Meeting, Western Section of the Wildlife Society, Sparks, Nevada (*abstract published*).
- 1989 Responses of mountain sheep to helicopter surveys: ramifications of the "Bo Peep" effect. 70th Annual Meeting, American Society of Mammalogists, University of Alaska, Fairbanks. (With R. T. Bowyer and M. C. Nicholson; *abstract published*).
- 1988 Managing mountain sheep on a metapopulation basis. 33rd Annual Meeting, Desert Bighorn Council, Needles, California. (With O. A. Schwartz and S. A. Holl; *abstract published*).
- [Invited Paper] Horizontal wells for wildlife water development. Wildlife Water Development Symposium, Las Vegas, Nevada (*abstract published*).
- Mechanical evaluation of artificial watering devices built for mountain sheep in California. Wildlife Water Development Symposium, Las Vegas, Nevada. (With A. M. Pauli; *abstract published*).
- Affiliations of volunteers participating in California wildlife water development projects. Wildlife Water Development Symposium, Las Vegas, Nevada (*abstract published*).
- Recommendations for the installation of telemetry collars on mountain sheep. 33rd Annual Meeting, Desert Bighorn Council, Needles, California. (With J. D. Wehausen, M. W. Berbach, J. A. Keay, and J. G. Stahmann; *abstract published*).
- 1987 Mountain sheep in California: a historical perspective on 108 years of full protection. 23rd Annual Meeting, Western Section of The Wildlife Society, Fresno, California. (With J. D. Wehausen and R. A. Weaver; *abstract published*).
- 1986 Genetics and the conservation of mountain sheep. 66th Annual Meeting, American Society of Mammalogists, University of Wisconsin, Madison. (With O. A. Schwartz and S. A. Holl; *abstract published*).
- [Invited Paper] Genetics, habitat fragmentation, and the conservation of mountain sheep. 22nd Annual Meeting, Western Section of The Wildlife Society, Hilo, Hawaii. (With S. A. Holl and O. A. Schwartz; *abstract published*).

- 1985 Techniques of managing chaparral habitat for mule deer and mountain sheep. 29th Annual Meeting, Desert Bighorn Council, Las Vegas, Nevada. (With S. A. Holl).
- 1982 Volunteer participation in California wildlife habitat improvement projects. 26th Annual Meeting, Desert Bighorn Council, Borrego Springs, California.
- Aging the lambs of mountain sheep. 26th Annual Meeting, Desert Bighorn Council, Borrego Springs, California.
- 1981 Horizontal wells for wildlife habitat improvement. 17th Annual Meeting, Western Section of the Wildlife Society, San Luis Obispo, California.
- [Invited Paper] Review comments. Symposium on Dynamics and Management of Mediterranean-type Ecosystems, San Diego, California.
- [Invited Paper] Management of chaparral habitat for mule deer and mountain sheep in southern California. Symposium on the Dynamics and Management of Mediterranean-type Ecosystems, San Diego, California. (With S. A. Holl).
- 1980 Ecological relationships between southern mule deer and California black oak. Symposium on the Ecology, Management and Utilization of California Oaks. Pomona College, Claremont, California. (With R. T. Bowyer).
- 1974 Thermoregulatory development in two species of woodrats (genus *Neotoma*). Annual Meeting, Southern California Academy of Sciences, California State University, Fullerton (*abstract published*).
- 1973 Home ranges of the desert woodrat in southwestern California. 53rd Annual Meeting, American Society of Mammalogists, Asilomar, California (*abstract published*).

Grants and Fellowships

Since 1973, I have competed successfully for and received project-specific funding in the amount of \$1,636,247 from intramural and external sources of financial support. Documentation for each is available upon request.

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ATTACHMENT B



Technical Consultation, Data Analysis and
Litigation Support for the Environment

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September 19, 2014

Laura Horton
Adams Broadwell Joseph & Cardozo
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South San Francisco, CA 94080

Subject: Comments on the California Flats Solar Project

Dear Ms. Horton:

We have reviewed the August 2014 Draft Environmental Impact Report (DEIR) for the California Flats Solar Project, a proposed 280-megawatt (MW) photovoltaic (PV) solar power facility in unincorporated southeastern Monterey County, approximately seven miles southeast of the community of Parkfield, California. The Project would be built and operated on a 3,000-acre portion of an existing 72,000-acre cattle ranch.

12.B.1

We have prepared comments on impacts from Project construction on hazards and hazardous waste, and air quality. A revised DEIR should be prepared and recirculated to adequately discuss these issues and to identify mitigation measures, where necessary.

Hazards and Hazardous Waste

The Hazards and Hazardous Waste section of the DEIR is not supported by a Phase I Environmental Site Assessment (ESA). Developers usually prepare Phase I ESAs for inclusion with CEQA documents to identify hazardous waste issues that may pose a risk to the public, workers, or the environment and which may require further investigation, including environmental sampling and cleanup.

12.B.2

Standards for performing a Phase I ESA have been established by the US EPA and the American Society for Testing and Materials Standards (ASTM).¹ Phase I ESAs are conducted to identify conditions indicative of releases of hazardous substances and include: (1) a review of all known sites in the vicinity of the subject property that are on regulatory agency databases for assessment and cleanup activities; (2) an inspection; (3) interviews with people knowledgeable about the property; and (4) recommendations for further actions to address potential hazards.

¹ <http://www.astm.org/Standards/E1527.htm>

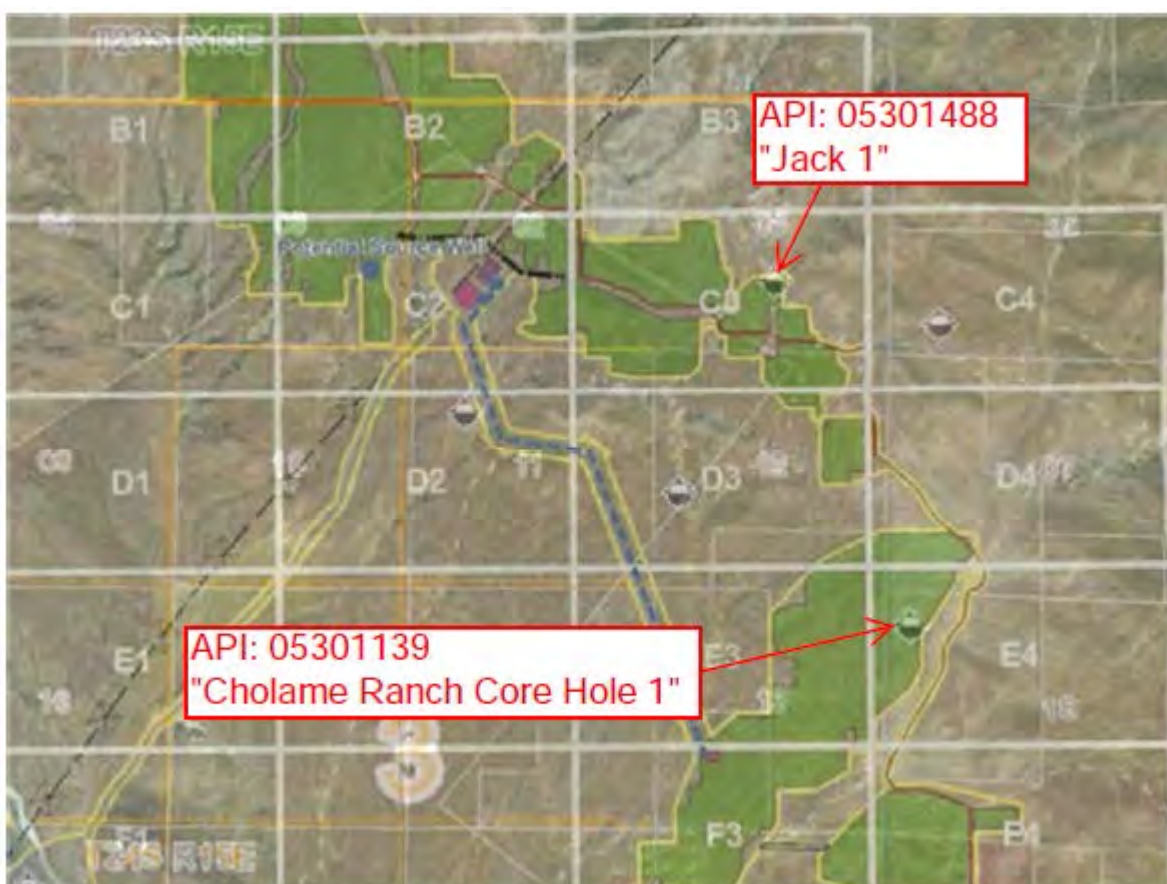
Phase I ESAs conclude with the identification of any “recognized environmental conditions” (RECs) and recommendations to address such conditions. A REC is the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. If RECs are identified, then a Phase II ESA generally follows, which includes the collection of soil, soil vapor and groundwater samples, as necessary, to identify the extent of contamination and the need for cleanup to reduce exposure potential to the public.

12.B.2

Failure to prepare the Phase I ESA may have led to oversight of hazardous conditions at the Project site. Consequently, the DEIR failed to disclose potentially significant impacts. A revised DEIR should be prepared to assess the Project site for: (1) the presence of oil and gas wells; and (2) for use as an agricultural storage yard.

Oil and Gas Wells are Present on the Project Site

We prepared an overlay of the Project’s site boundaries atop the California Department of Geology and Geothermal Resources (DOGGR) “Well Finder” website² (below).



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² <http://maps.conservation.ca.gov/doggr/index.html#>

The overlay shows two oil and gas wells (API: 05301488 "Jack 1" and API: 05301139 "Cholame Ranch Core Hole 1") within the Project boundary. Both wells are identified as "dry holes" at the DOGGR Wellfinder website which includes no information about the completion date of the two wells, the date of well abandonment, or techniques used to abandon the wells. Prior well abandonment practices were not as rigorous as modern well abandonment practices regulated by the DOGGR.³ Poorly abandoned wells may act as conduits for contamination⁴ to move from the surface to deeper levels in the subsurface, including movement of surface contaminants to groundwater. Older abandonments may also allow for seepage of gas to the surface through poorly sealed wells.

The presence of the wells on the Project site is a significant impact. During construction of the Project, surface and near-surface features of the undisclosed wells could be damaged by construction equipment, potentially posing a fire hazard from natural gas that could seep to the surface. The wells, if left in their current condition, may pose health hazards to construction workers who may be installing Project infrastructure (solar modules and module supports) in close proximity to the undisclosed well. The workers may be unknowingly subject to a fire risk if a spark were to ignite seeping gas or to health hazards if they were to breathe petroleum vapors. Finally, any surface contamination that may result from construction activities -- including a release of gasoline, diesel or hydraulic fluid -- may travel down the abandoned wells to contaminate underlying groundwater.

A revised DEIR should be prepared to include disclosure of this significant impact and subsequent mitigation measures, including provisions for locating the wells in the field and documenting their locations, and documenting abandonment techniques. If well abandonment techniques cannot be verified, or if abandonment techniques are inadequate to protect water resources and worker safety, the wells should be re-abandoned to meet modern DOGGR requirements.

Inadequate Analysis of Potential for Pesticides

The DEIR states: The majority of site disturbance at the project site would not occur in an area historically used for croplands (p. 4.8-1). The DEIR concludes (p. 4.8-3):

Based on historical and current land use in the project area, no residual pesticides or herbicides are anticipated to be found in the soil and/or groundwater.

The DEIR offers no conclusions by a qualified professional (i.e. licensed professionals who are required to author and sign a Phase I ESA, for example) who would be able to substantiate the claim that pesticides would not be found in Project site soils or groundwater. To bolster the claim that pesticides were not used, the DEIR only cites to reports filed with the Monterey County Agricultural Commissioner (p. 4.8-3) which include no documentation of pesticide use at the Project site. The DEIR does not cite the time period for which these reports have been filed; therefore, the potential exists for use of pesticides at the Project prior to submittal of the reports to the agency.

³ ftp://ftp.consrv.ca.gov/pub/oil/publications/PRC04_January_11.pdf, Article 3, Section 1723

⁴ <http://www.epa.gov/region1/students/pdfs/gwc1.pdf>

12.B.3

12.B.4

The evaluation of pesticide usage and the potential for pesticide residuals to be present in soil or groundwater is especially important because irrigated agriculture was practiced at the Project site. According to the DEIR, approximately 38.7 acres of irrigated cropland are present in the westernmost portion of proposed utility corridor (p. 4.8-4).

Agricultural activities at the Project site may have included the use of organochlorine pesticides, including Dieldrin, 4,4'-DDE, and 4,4'-DDT. The presence of these pesticides may persist in the soil for hundreds of years despite being banned in the 1970s.⁵ The U.S. EPA has determined organochlorine pesticides, such as Dieldrin, 4,4'-DDE, and 4,4'-DDT, to be probable human carcinogens. DDT is also known to affect the nervous system.⁶

Workers who will contact soils at the project site during site grading and excavation activities may be exposed through inhalation and dermal contact with soil and dust that may be contaminated with hazardous pesticides. Nearby residents, some within 1000 feet of the project (DEIR, p. 4.11-11) may also be exposed to contaminated dust from construction activities.

A revised DEIR should be prepared for the Project that would include the collection of samples for the analysis of organochlorine pesticides and arsenic. The "Interim Guidance for Sampling Agricultural Properties" prepared by the Department of Toxic Substances Control (DTSC) recommends that soil samples at sites with an area of 39 acres (the size of the area used for irrigated cropland in the westernmost portion of proposed utility corridor) should be collected at over 49 boring locations.⁷ At the 49 locations, 13 composite (combined) samples should be submitted for organochlorine pesticide analysis and 13 discrete (individual) samples should be collected for arsenic analysis.

Sample results should be compared to regulatory screening levels, including the Department of Toxic Substances Control California Human Health Screening Levels⁸ and the Regional Water Quality Control Board Environmental Screening Levels.⁹ If sample results exceed the screening thresholds, a human health risk assessment should be conducted to better estimate health impacts to construction workers and those residents downwind of the project, some as close as 775 feet from the Project boundary (DEIR, p. 4.11-11) who may be exposed to fugitive dust. The DEIR does provide for mitigation of dust, but because the mitigation outlined in AQ-2(a) did not consider the specific need to address the potential for pesticides, the mitigation may fall short in protecting the public from health hazards.

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⁵ Toxicological Profile for DDT, DDE, and DDD, Agency for Toxic Substances and Disease Registry, <http://www.atsdr.cdc.gov/toxprofiles/tp35.pdf>, p. 3

⁶ ToxFAQs, DDT, DDE, DDD, <http://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=80&tid=20>

⁷ Department of Toxic Substances Control, Interim Guidance for Sampling Agricultural Properties (Third Revision). <http://www.dtsc.ca.gov/Schools/upload/Ag-Guidance-Rev-3-August-7-2008-2.pdf>, Table 1.

⁸ <http://oehha.ca.gov/risk/chhsltable.html>

⁹ http://www.waterboards.ca.gov/rwgcb2/water_issues/programs/esl.shtml

Air Quality

Construction Air Emissions are Inadequately Mitigated

NOX and PM10 emissions during construction, after mitigation, would be in exceedance of Monterey Bay Unified Air Pollution Control District (MBUAPCD) thresholds, a significant and unavoidable impact (AQ-2). The DEIR states “No other feasible measures are available that would further reduce construction emissions” (p. 4.3-1). Despite this claim, additional commonly used mitigation is available. A revised DEIR should be prepared to identify additional mitigation.

Mitigation for NOx emissions should include consideration of the following measures that have been proposed in other recent CEQA documents where NOx has been estimated to exceed air quality thresholds.¹⁰

- For grading and trenching activities, the project operator shall reduce exhaust emissions during construction and, in particular, emissions of NOx, when using construction equipment and vehicles by implementing the following measures:
 - Require the use of diesel haul trucks (e.g., material delivery trucks and soil import/export) that meet U.S. Environmental Protection Agency 2007 model year NOx emissions requirements.
 - During project construction, all internal combustion engines/construction, equipment operating on the project site shall meet U.S. Environmental Protection Agency-Certified Tier 3 emissions standards, or higher according to the following schedule:
 - (i) January 1, 2012, to December 31, 2014: All off-road diesel-powered construction equipment greater than 50 horsepower shall meet Tier 3 off-road emissions standards.
 - (ii.) Post-January 1, 2015: All off-road diesel-powered construction equipment greater than 50 horsepower shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with best available control technology devices certified by California Air Resource Board. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by California Air Resources Board regulations. In addition, all construction equipment shall be outfitted with best available control technology devices certified by California Air Resources Board. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy.

These measures are more stringent and prescriptive than those measures identified in the DEIR. For example, the DEIR states only that off-road construction equipment is to meet Tier 3 engine technology

¹⁰ September 2013 Draft Environmental Impact Report Fremont Valley Preservation Project, http://www.co.kern.ca.us/planning/pdfs/eirs/fremont_solar/fremont_solar_deir_vol1.pdf, p. 4.3-33

(p. 4.3-1). On May 11, 2004, EPA signed the final rule introducing Tier 4 emission standards for off-road vehicles, which are being phase in from 2008-2015. The Tier 4 standards require that emissions of PM and NOx be further reduced by about 90% through the use of control technologies including advanced exhaust gas after treatment.¹¹ A wide variety of off-road equipment is commercially available.¹² The U.S. EPA has affirmed the use of Tier 4 engines, in commenting on a Draft Environmental Impact Statement prepared for a renewables project in Kern County.¹³

Additional feasible mitigation is available to reduce NOx emissions, contrary to what the DEIR claims. A revised DEIR should require the use of engines meeting Tier 4 emissions standards after January 1, 2014, consistent with other renewables projects. The DEIR should be revised require the use of Tier 4 engines according to the schedule (above) identified in other recent CEQA documents.

Mitigation for PM10 in a revised DEIR should also include consideration of all feasible measures. The measures listed below are complimentary to the mitigation measures and the APMs identified in the DEIR or are more rigorous. The measures below have been identified in the mitigation of emissions from renewable energy projects in other air districts¹⁴ and should be considered to further reduce Project emissions:

- Prohibit visible dust from leaving the Project site property line during all construction activities, including trenching and pile-driving;
- Conduct simultaneous sampling (upwind and downwind of construction activities) with air sampling equipment to ensure that PM10 levels do not exceed 50 micrograms per cubic meter. This measure would be consistent with other California air district's rule (see for example, South Coast Air Quality Management District¹⁵ and El Dorado County Air Pollution Control District¹⁶;
- Prevent "track-out" of soil from construction equipment more than 25 feet onto paved roads; and
- Apply water once per hour to unpaved roads during high wind conditions.¹⁷

To further reduce PM10 emissions, the DEIR should require the use of Tier 4 diesel engine technology. In addition to reducing NOx emissions, use of such engines was cited by the US EPA as having the potential for reducing PM10 emissions by 90% as compared to using Tier 3 technology.¹⁸

Diesel Particulate Matter

The DEIR and supplemental air quality appendices (Appendix C.1 and Appendix C.2) do not adequately evaluate the potential for significant air quality impacts resulting from diesel particulate matter (DPM)

¹¹ <https://www.dieselnet.com/standards/us/nonroad.php>

¹² http://www.cat.com/en_US/support/operations/technology/tier-4-technology.html

¹³ U.S. Environmental Protection Agency, Comments on the Alta East Wind Project, September 27, 2012 (attached).

¹⁴ AVAQMD Rule 403(D), "Dust Control Plan,"

<http://www.avagmd.ca.gov/Modules/ShowDocument.aspx?documentid=867>

¹⁵ <http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf?sfvrsn=4>, p. 6

¹⁶ file:///C:/Users/Matt/Downloads/Rule_223_Fugitive_Dust_General_Requirements.pdfm, p. 7

¹⁷ AVAQMD Rule 403(C), see footnote 11, *supra*.

¹⁸ U.S. Environmental Protection Agency, Comments on the Alta East Wind Project, September 27, 2012 (attached).

12.B.5

12.B.6

emissions generated during Project construction. Appendix C.1, the Project's Air Quality and Greenhouse Gas Assessment (AQA), was prepared in August of 2013 by Denise Duffy & Associates, Inc. and RBF Consulting (Duffy/RBF). Appendix C.2 is an amended emissions assessment prepared by AMBIENT Air Quality & Noise Consulting (AMBIENT) in February 2014 that addresses additional emissions to be generated from expansion of the solar array perimeter, increased earthmoving activities and widening of a private access road, and increased water usage during Project construction.

The Project's air quality assessment fails to fulfill the requirements set forth in the CEQA guidelines promulgated by the MBUAPCD and the San Luis Obispo County Air Pollution Control District (SLOCAPCD) with regards to diesel particulate matter, resulting in undisclosed and unmitigated significant impacts. The Project is situated within both of the air districts, and Appendix C.1 identifies that the AQA, "has been prepared pursuant to California Environmental Quality Act of 1970 and associated Guidelines... and in accordance with local, state and federal laws, including those administered by MBUAPCD, SLO County APCD, CARB, and the EPA." (Appendix C.1, p. 15). Despite asserting that the appropriate air quality guidelines were considered in characterizing air quality impacts, the DEIR and Appendix C.1 omitted an evaluation of the Project's total construction-related DPM emissions.

The SLOCAPCD maintains quarterly thresholds for construction DPM emissions associated with proposed development projects, identified in section 4.3.3 of the DEIR (p. 4.3-18). The Tier 2 threshold for DPM emissions is 0.32 tons/quarter and, by exceeding this threshold, a proposed project is required to implement a Construction Activity Management Plan (CAMP) and off-site mitigation efforts.¹⁹ Table 4.3-7 (p. 4.3-39) in the DEIR presents worse-case annual indirect mobile source emissions within SCCAB, but only includes the emissions associated with the private access road expansion in comparison to the quarterly SLOCAPCD thresholds. Emissions of DPM from the totality of Project build-out have the potential to affect air quality in the SLOCAPCD as well as the MBUAPCD, and therefore should be evaluated and, if necessary, mitigated when addressing applicable air quality thresholds.

In accordance with CARB recommendations, the AQA utilized CalEEMod to characterize emissions of criteria air pollutants (CAPs) and toxic air contaminants (TACs) associated with Project construction and operation. CalEEMod generates maximum daily and annual emissions of these chemicals based on anticipated equipment usage and vehicle fleets that will be employed during a project's construction and operation. The following table was provided in the CalEEMod output files in Appendix C.1 and summarizes the emissions associated with Project construction over the expected 12-month duration (DEIR, p. 4.3-22).

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¹⁹ CEQA Air Quality Handbook, A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review. San Luis Obispo County Air Pollution Control District. July 2014. http://www.slocleanair.org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20July%202014%29%281%29.pdf

Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total |
|--------------|-------------|--------------|--------------|-------------|---------------|--------------|--------------|----------------|---------------|-------------|
| Year | tons/yr | | | | | | | | | |
| 2014 | 1.04 | 6.73 | 6.82 | 0.01 | 7.26 | 0.38 | 7.64 | 0.01 | 0.37 | 0.38 |
| 2015 | 5.04 | 30.97 | 31.60 | 0.06 | 29.00 | 1.84 | 30.84 | 0.02 | 1.83 | 1.85 |
| Total | 6.08 | 37.70 | 38.42 | 0.07 | 36.26 | 2.22 | 38.48 | 0.03 | 2.20 | 2.23 |

The estimated total exhaust DPM for Project construction is 2.22 tons, which averages to approximately 0.56 tons/quarter. The DEIR and AQA should be revised to address the magnitude of DPM emissions from Project construction, and disclose the significant and unavoidable impact of exceeding the SLOCAPCD quarterly Tier 2 threshold for DPM. The MBUAPCD acknowledges that, "temporary emissions of a carcinogenic TAC that can result in a cancer risk greater than one incident per 100,000 population are considered significant."²⁰ To address this potential additional impact from Project construction, we conducted a screening level health risk assessment to evaluate off-site impacts to nearby residential receptors.

There are two residences within 1,000 feet of the Project boundary (DEIR, p. 4.3-17), which is the screening distance set forth by the MBUAPCD and the SLOCAPCD. It is unclear why the DEIR refrained from adequately examining off-site concentrations of DPM that will be generated by Project construction, despite claiming that the CEQA guidelines for both air districts were adhered to in preparing the DEIR and supplemental air quality appendices. The MBUAPCD guidelines state that, "impact analyses for sources of TACs should include project level and cumulative impacts."²¹ The revised DEIR and supplemental air quality assessment should include a Project-level analysis of DPM that is expected to be generated by construction and any necessary mitigation measures.

We utilized the EPA-promulgated screening model AERSCREEN to simulate downwind concentrations of DPM associated with Project construction. Since 2011, AERSCREEN has been the preferred regulatory screening model for predicting maximum off-site concentrations of air pollutants.²² AERSCREEN allows the user to simulate emissions from a point, area, or volume source based on a limited amount of information available. If results of a screening model exercise indicate a potential air quality concern, then a more refined modeling approach should be undertaken.²³

The AERSCREEN model relies on a continuous emission rate for an air pollutant. We calculated the average emission rate of DPM associated with Project construction by the following equation.

²⁰ CEQA Air Quality Guidelines. Monterey Bay Unified Air Pollution Control District. February 2008.

[http://mbuapcd.org/pdf/CEQA_full%20\(1\).pdf](http://mbuapcd.org/pdf/CEQA_full%20(1).pdf)

²¹ *Ibid.*

²² MEMORANDUM: AERSCREEN Released as the EPA Recommended Screening Model. United States Environmental Protection Agency Air Quality Modeling Group. April 11, 2011.

http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf

²³ Health Risk Assessments for Proposed Land Use Projects, CAPCOA Guidance Document. California Air Pollution Control Officers Association. July 2009. http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf

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$$\text{Emission Rate } \left(\frac{\text{grams}}{\text{second}} \right) = \frac{2.22 \text{ tons}}{\text{year}} \times \frac{2,000 \text{ lbs}}{\text{ton}} \times \frac{453.6 \text{ grams}}{\text{lb}} \times \frac{1 \text{ year}}{365 \text{ days}} \times \frac{1 \text{ day}}{24 \text{ hours}} \times \frac{1 \text{ hour}}{3,600 \text{ seconds}}$$

The average emission rate of DPM during Project construction from all equipment and fleet vehicles is approximately 0.0637 grams per second (g/s). This is the value of the continuous emission rate that we incorporated into our screening level health risk assessment.

The AERSCREEN model relies upon a simply defined point, area, or volume source to run its algorithms. Due to the geometric complexity of the Project boundary, we elected to be conservative and model DPM emissions from a larger area than the Project footprint. The conceptual Project boundary used for screening model purposes is shown on the figure below. It should be noted that by expanding the total area over which modeled emissions are occurring, maximum downwind concentrations are likely diluted by a small fraction as the actual emissions would be more heavily concentrated within the areas of greatest disturbance.

12.B.6

Expanded Site Boundary for Screening Health Risk Assessment



12.B.6

The continuous emission rate of 0.0637 g/s was modeled from the area depicted above with a conservative average release height of three meters to simulate exhaust stacks on construction equipment.

AERSCREEN generates maximum single-hour ground-level concentrations of the modeled pollutant at specific downwind distances. The off-site residential sensitive receptors are situated approximately 775 feet (235 meters) and 1,000 feet (300 meters) from the Project boundary (p. 4.3-29). The maximum DPM concentrations output by the AERSCREEN model at these distances were approximately 2.12 $\mu\text{g}/\text{m}^3$ and 2.14 $\mu\text{g}/\text{m}^3$, respectively. EPA's regulatory methodology for screening models recommends that the maximum annualized concentration of an emitted air pollutant may be estimated by multiplying the single-hour concentration by 10%, resulting in a concentration of 0.214 $\mu\text{g}/\text{m}^3$ DPM for our Project's screening-level health risk assessment.

Project construction is anticipated to take 12-24 months (p. 4.3-22). Even though the Project's construction will be of short duration, OEHHA recommends "that exposure from projects lasting more than 6 months be evaluated for the duration of the project. In all cases the exposure should be assumed to start in the third trimester [of an exposed individual's life] to allow for the use of the Age Sensitivity

Factors (OEHHA, 2009).”²⁴ Age Sensitivity Factors were developed by OEHHA to characterize the heightened susceptibility of children to the inhalation toxicity of carcinogens such as DPM. Therefore, the exposure was scaled by a factor of 10 in consideration of an infant's modeled exposure.

The following table presents the results of our screening-level health risk assessment for a child living 1,000 feet away from the Project boundary during construction. Our calculations indicate that the excess cancer risk to a child living at this location would be 18.7 in one million. This excess cancer risk constitutes a significant air quality impact by the MBUAPCD and SLOCAPCD CEQA guidelines. A comprehensive health risk assessment should be prepared in the revised DEIR and AQA to address the potential for the excess cancer risk threshold of significance to be exceeded and ensure that the health of nearby residents has been adequately considered and protected.

| Parameter | Description | Units | Infant Exposure |
|-----------|------------------------|-------------------|-----------------|
| CPF | Cancer Potency Factor | 1/(mg/kg-day) | 1.1 |
| Cair | Concentration | ug/m ³ | 0.214 |
| DBR | Daily breathing rate | L/kg-day | 581 |
| EF | Exposure Frequency | days/year | 350 |
| ED | Exposure Duration | years | 1 |
| AT | Averaging Time | days | 25550 |
| | Inhaled Dose | | 1.7E-06 |
| ASF | Age Sensitivity Factor | - | 10 |
| | Cancer Risk | | 1.87E-05 |

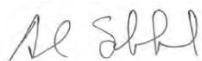
12.B.6

The results of our analyses demonstrate that air quality impacts from construction-related DPM have not been adequately or appropriately evaluated or mitigated. DPM associated with Project construction may present a significant impact on air quality and warrants further investigation prior to the Project's approval.

Sincerely,



Matt Hagemann, P.G., C.Hg.



Anders Sutherland

²⁴ Technical Support Document for Exposure Assessment and Stochastic Analysis, FINAL. Office of Environmental Health Hazard Assessment, August 2012. 11-5. http://oehha.ca.gov/air/hot_spots/tsd082712.html



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B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certification:

California Professional Geologist

California Certified Hydrogeologist

Qualified SSWPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – present;
- Senior Environmental Analyst, Komex H2O Science, Inc (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt’s responsibilities have included:

- Lead analyst and testifying expert in the review of numerous environmental impact reports under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions and geologic hazards.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt’s duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.
- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt currently teaches Physical Geology (lecture and lab) to students at Golden West College in Huntington Beach, California.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Colorado.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

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EDUCATION

UNIVERSITY OF CALIFORNIA, LOS ANGELES B.S. ATMOSPHERIC, OCEANIC, & ENVIRONMENTAL SCIENCES JUNE 2010

PROJECT EXPERIENCE

SOIL WATER AIR PROTECTION ENTERPRISE

SANTA MONICA, CA

AIR QUALITY SPECIALIST, PROJECT DEVELOPMENT STAFF

MARCH 2009 - JUNE 2013

PROJECT MANAGER: VOC EMISSIONS AT UNCONVENTIONAL NATURAL GAS FACILITIES

SEPT 2011 - JUNE 2013

- Coordinated air dispersion modeling of VOC emissions from thirty-five natural gas processing facilities using AERMOD.
- Evaluated locally cumulative modeled concentrations with respect to regulatory thresholds and peer-reviewed literature.
- Reviewed and organized emissions inventory data and emission factor development studies to define model source terms.
- Composed text of affidavits and organized supporting materials for use as Expert testimony in environmental litigation.
- Participated in meetings with clients to discuss project strategy and identify solutions to achieve short and long term goals.

SENIOR ANALYST: VOCs AND SO₂ IN AMBIENT AIR SURROUNDING A PETROLEUM REFINERY NOV 2010 - JUNE 2013

- Analyzed air monitoring data from numerous stations during facility emission events to examine effectiveness of network.
- Produced tables, charts, and graphs to exhibit the relative contribution of petroleum refinery emissions to local air quality.
- Combined analyses of air monitoring data, emissions modeling, and peer-reviewed literature in Expert Witness reports.
- Addressed time-dependent requests of client to conduct statistical analyses of air monitoring and emissions inventory data.
- Examined regulatory studies on the chemistry of ozone formation to characterize air quality impacts from industrial flares.

SENIOR ANALYST: BAAQMD LAND USE REDEVELOPMENTS SCREENING & MODELING

JAN 2011 - DEC 2011

- Calculated roadway, permitted source, and cumulative impacts for risk and hazard analyses at proposed land use projects.
- Prepared presentations containing figures and tables comparing results of particulate matter analyses to CEQA thresholds.
- Composed summary texts of Risk and Hazard Screening Analyses conducted for several land use redevelopment projects.
- Utilized BAAQMD methodologies for surface streets screening analyses to interpolate impacts between receptor distances.

SENIOR ANALYST: ODOROUS COMPOUNDS EMANATING FROM A SMOLDERING LANDFILL

APRIL 2013 - JUNE 2013

- Conducted ambient air and landfill gas sampling using sorbent tubes and SUMMA canisters for an array of analytes.
- Prepared portions of Quality Assurance Project Plan and Sampling and Analysis Plan submitted to the Missouri DNR.
- Calculated dioxin TCDD Toxic Equivalency Values from air monitoring data results obtained during field work activities.
- Reviewed previously conducted air sampling events to determine potential contaminants of concern and odor thresholds.

PUBLICATIONS

Contributing author: Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., Rosenfeld, P.E. Dioxin furan blood lipid and attic dust concentrations in populations living near four wood treatment facilities in the United States. *Journal of Environmental Health*. 2011 Jan-Feb; 73(6): 34-46.

Contributing author: Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., Rosenfeld, P.E. PCBs and dioxins/furans in attic dust collected near former PCB production and secondary copper facilities in Sauget, IL. *Procedia Environmental Sciences* 4 (2011): 113-125.

Contributing author: Chen, J.A., Zapata, A.R., Sutherland, A.J., Molmen, D.R., Chow, B.S., Wu, L.E., Rosenfeld, P.E., Hesse, R.C. Sulfur dioxide and volatile organic compound exposure to a community in Texas City, Texas evaluated using AERMOD and empirical monitoring data. *American Journal of Environmental Science* 8(6) 2012: 622-632.

ATTACHMENT C

September 18, 2014

Laura E. Horton
Adams Broadwell Joseph & Cardozo
601 Gateway Blvd., Suite 1000
South San Francisco, CA 94080
Subject: California Flats Solar Project – Review of DEIR Drainage Analysis

Dear Ms. Horton

I have reviewed the hydrologic aspects of the California Flats Solar Project Draft Environmental Impact Report (hereinafter DEIR) regarding rainfall, runoff, drainage, and erosion. In addition to reviewing the relevant parts of the DEIR, I have reviewed Appendices J.1 (RBF Consulting 2013) and J.2 (Campbell 2014) of the DEIR and a CEQA Impact Assessment (Duffy and RBF 2013) were reviewed. Additionally, I reviewed a peer review (Huff 2013) of an earlier version of the drainage study was also consulted.

My qualifications include a Ph.D. and M.S. in hydrology/hydrogeology from the University of Nevada, Reno, and 30 years of experience as a consultant, academic, or government hydrologist and engineer. I have consulted for 15 years in areas regarding hydrogeology and the estimation of the impacts due to groundwater pumping with regards to mine dewatering and water rights applications. I have published four peer-reviewed articles on hydrogeology and groundwater modeling. My Ph.D. work involved aspects of fluvial morphology, sedimentation, and interactions with land management. I have published a dozen peer-reviewed articles regarding the effects of land management on fluvial morphology. My curriculum vitae is attached to this letter.

12.C.1

Summary

The DEIR presents storm runoff and flow velocity estimates for the proposed 280-megawatt (MW) alternating current (AC) photovoltaic (PV) solar power facility in unincorporated southeastern Monterey County. The review below presents several reasons why the flow estimates may be too low, flow depths too high, and flow velocities too low. Although overestimating flow depth may seem conservative, it is not. Higher flow with lower depths will lead to much higher velocity. Higher velocity would lead to much higher erosion rates,

12.C.2

including an increased potential for the ephemeral drainages that cross the site to erode and move, potentially undercutting the solar arrays. This will increase the area considered to be hazard level 3. The underestimate of flows, flow velocities, and areas within hazard level 3 is inappropriate disclosure for the DEIR.

The construction of solar arrays and modules will exacerbate the problem because their footings will, if placed where water flows, have the effect of hardening the streambanks. This prevents erosion at the footing, but simply causes it to occur someplace else along the channel. The DEIR refers occasionally to the design-level drainage analysis that will be done prior to construction. Due to the uncertainties in the potential impacts, it is insufficient disclosure of the potential impacts to not include and analyze the final design in this DEIR. As a result, there is no substantial evidence that the impacts are less than significant.

12.C.2

Review

The project area is broken into three areas, 1, 2, and 3. Area 1 has runoff from 88 small watersheds that drain across Area 1, as shown on RBF Exhibit 3. Runoff from those watersheds collects at 23 concentration points that enter Area 1. Area 3 has 17 tributary watersheds as shown in RBF Exhibit 4. The runoff volume and rate from offsite watersheds is determined using the HEC-HMS rainfall/runoff model which applies NRCS flood hydrograph detailed in NRCS (1986). This is commonly known as the SCS Curve Number method. RFB calculates flows at points of inflow to the project area that were based on watercourses as determined from USGS maps. Area 2 has no offsite drainage.

Onsite runoff is that generated from rainfall directly on the project site. Generally, there are three forms of onsite runoff – sheet flow, shallow concentrated flow and channel flow. They used a program called FLO-2d to calculate runoff from each area and to estimate flow depths and velocities. Flow velocity for each type of runoff is used to determine the time for flow to travel the entire length along either specific pathway. The time for flow from the most distant point of the drainage basin to the outlet from the basin is the time of concentration (TOC). After runoff has been generated for a time period that exceeds the TOC, the entire drainage basin is contributing. Setting the critical rainfall period to the TOC causes the model to simulate the maximum runoff rate. Therefore, determining TOC accurately is essential to these runoff methods.

12.C.3

The modeler sets parameters in the model that control runoff, flow rates, and velocities. Most parameters like flow length and slope are measured from the digital elevation model used to input site topography to model, but the modeler chooses the roughness factors, the Manning's n value, and parameters controlling infiltration such as curve number, abstraction, and infiltration rates.

RBF's estimates of n and related parameters could cause the travel time, or TOC, for the tributary watersheds to be overestimated which would cause the flood flow peak to be underestimated.

RBF use n equal to 0.4 to account for "dense natural grasses and rough terrain" (RBF p 17), but TR-55 recommends n equal to 0.24 for dense grasses and 0.4 for light underbrush (NRCS 1986, Table 3-1). The lower n, which based on NRCS (1986) would be more appropriate, would allow faster runoff and a lower TOC and, therefore higher runoff rates. There are not sufficient photos of the upland watershed to make an alternative estimate as part of this review. RBF should ascertain they are using the correct n value because the apparent error could lead to an underestimate of runoff rates and velocities.

TR-55 also sets an upper limit for sheet flow at 300 feet (NRCS 1986, p 3-3). This means that after flowing for 300 feet, sheet flow would coalesce into more concentrated flow. In their appendix, RBF shows a table Area 1 Watershed Area Lag Time Computation. Several watersheds have flow length exceeding 300 feet which could cause the travel time to be overestimated which causes the TOC to be higher and the flow rate lower.

RBF uses an equation for shallow concentrated flow that varies only according to slope (RBF Equation 3). It appears to be based on $n=0.05$ and hydraulic radius of 0.4. It involves huge assumptions but according to TR-55, RBF has applied it properly. RBF should verify for the specific channels that roughness n equal to 0.05 is appropriate. This is particularly important in light of their using $n=0.08$ for channel flow. As a channel gets larger there should be less debris and vegetation slowing the flow, so the n value for the channel should be less than for the shallow concentrated flow. It is impossible to assess which is incorrect, but RBF should document the condition of the actual channels and selected n value. If n equal to 0.08 is too high, the simulated TOC will be too high and the estimated flow rate is too low.

All of these n estimates and sheet flow length estimates could cause the flow rates entering Area 1 to be estimated too low. RBF should better document the reasons for choosing the n values used. Considering these are ephemeral channels, documentation would be mostly photographic.

RBF does not describe which drainages above the concentration points combine to cause the calculated flows, so it is impossible to assess the accuracy of the flow calculation and routing.

The choice of initial abstraction for onsite runoff may significantly underestimate flood flow rates.

12.C.4

12.C.5

Onsite runoff is runoff from rainfall on the project site. Initial abstraction (Ia) is the amount of water stored before runoff can begin. In general, it is water that goes to wetting the surface, filling small depressions, and completely wetting the vegetation so that additional rainfall passes through the canopy. It includes infiltration and evapotranspiration that occurs while the storage components are being filled. The curve number represents the runoff potential of a watershed and is based on soils type and ground cover.

RBF established a grid over the onsite watersheds numerically to facilitate calculation of runoff at a small scale. RBF states (p 22) that a curve number of 89 and initial abstraction of 0.47 was applied over the grid system used to simulate onsite runoff. Either the curve number or Ia is incorrect. NRCS (1986) published Ia values for various curve number values. For CN=89, the Ia equals 0.247 inches. If the curve number is correct, there is an error of 0.23 inches which is effectively the amount of rainfall that would additionally become runoff. This error could cause the calculations to grossly underestimate runoff volume and rate. Because the runoff amount from the site is key to the calculations of onsite flow depth and velocity, it suggests that every estimate of depth and hazard zone presented in the DEIR is wrong (DEIR p 4-9.25). RBF needs to essentially redo every calculation of runoff and then flow depth and velocity and redo their hazard mapping.

12.C.5

RBF significantly underestimates erosion within Area 1. RBF calculates that there will be high flows, depths and velocities crossing Area 1. But the analysis completely neglects that ephemeral streams with occasional high flows have significant erosion potential.

From RBF:

Results from the Area 1 FLO-2D models are presented in Exhibit 8 and Exhibit 9 (flow depth and hazard maps, respectively). Flow depths across the site vary depending primarily on location with respect to streams and flow breakout points. In general, much of the site experiences a flow depth of less than 0.1 feet, while those areas located in flow breakout paths experience flow depths of between 0.1 and 1 foot. Some regions on the floodplain experience flow depths on the order of 2.0 feet. Flow depths in or near channels are, in general, between 2.0 and 8.0 feet, while some isolated areas may have 100-year flow depths on the order of approximately 15.0 feet at locally narrow locations.

12.C.6

Floodplain velocities remain, for the most part, between 0.1 and 1.0 ft/s. Areas where water breaks out of a channel experience flow velocities up to 2.0 ft/s, and areas near low flow channels see velocities on the order of 4.0 ft/s. Channel velocities are generally on the order of 2.0-10.0 ft/s, while some short, steep segments of channels indicate flow velocities of up to 16.0 ft/s. (RBF 2013, p 27)

If the n values are overestimated as discussed above, it is possible that the velocities will actually be much higher and depths lower. For much of the project site, high depth at a few locations in ephemeral channel is not a problem. However, high velocity flow causes erosion so the erosion that is likely even with flows as estimated by RBF will be even more significant with the necessary corrected estimates. Thus, in the absence of accurate calculations, the DEIR has not provided substantial evidence that the impacts are less than significant.

12.C.6

Erosion of channels within Area 1 from offsite runoff could endanger the solar arrays.

The proposed project would impact ephemeral watercourses that traverse the Project site. The previous paragraphs describe the high velocities that those watercourses will experience during run off events. Ephemeral drainages that occur at the project site often change course during high flow due to erosion and sediment transport; this will occur with time with or without the project. The project would affect the drainages around the site by placing solar array pilings in areas that will experience some runoff. If placed in an ephemeral watercourse, the pilings would create essentially armored sections in the channel overbank regions that would not erode. Whenever a portion of a channel becomes artificially armored, erosion will occur elsewhere. The DEIR does not contain detailed topography or grading plans for the ground surface near the proposed arrays, so detailed assessment has not been complete nor is it possible for a reviewer to make the assessment. It is virtually certain that the pilings will also alter the flow patterns and likely cause erosion and sedimentation in locations it would otherwise not occur.

12.C.7

Mitigations

The DEIR states that the proposed project would be required to comply with the recommendations in the Preliminary Drainage Report and the final design of the project would be required to be developed in accordance with a final, design-level, drainage analysis (DEIR, p 4.9-26). These recommendations include:

- No modules shall be placed in areas where the product of the flow depth and flow velocity is greater than 9 feet per second (corresponding to a hazard level 3, as defined in the Preliminary Drainage Report) during a 100-year, 24- hour storm event, based on the results of a design-level drainage analysis;
- No transformers, substations, or inverters shall be placed in areas where the flow depth exceeds 2 feet (corresponding to a hazard level 3, as defined in the Preliminary Drainage Report) during a 100-year, 24-hour storm event; and

12.C.8

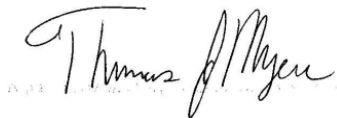
- Solar modules, transformers, substations, or inverters constructed in areas where any inundation is expected to occur should be placed a minimum of 1 foot above the 100-year water surface elevation.

The review above indicates that it is possible that flow velocities and potential erosion has been significantly underestimated, and that Impact HYD-5 could result in a significant impact on the environment that would require mitigation. Therefore, there is no substantial evidence that the recommendations provided would reduce the impacts to less than significant as indicated in the DEIR. The impacts would need to be fully and properly mitigated based on accurate calculations. This could require an adjustment of the discussion regarding hazard areas for Impact HYD-5 (DEIR, p 4.9-25). If the calculations are not redone, the mitigations required for this hazard may be impossible to complete or may exacerbate the problem, as described below.

The current recommendations require that modules not be placed in areas with hazard level 3, wherein the product of depth and velocity due to the design storm exceeds $9 \text{ ft}^2/\text{s}$ (DEIR, p 4.9-26). At the level of mapping currently used, it is simply impossible to define these zones with sufficient accuracy to keep the modules out of them. The needed calculation changes described above could expand the hazard zones as to significantly change the area available for development. The same applies for the recommendation preventing the placement of “transformers, substations, or inverters” (Id.) within any area where flow depth exceeds 2 feet; depth has not been sufficiently accurately determined. Finally, the requirement that “modules, transformers, substations, or inverters” be constructed “a minimum of 1 foot above the 100-year water surface elevation” could require the construction of pilings that will cause the velocities to be increased and cause erosion, as described above. This positive feedback could cause the final construction to not meet the requirements of the recommendations.

12.C.8

Sincerely,



Thomas Myers Ph.D.

Hydrologic Consultant

References

Campbell C (2014) Memorandum, First Solar, California Flats Solar 1019-0040, Preliminary Drainage Analysis Addendum, to Robert Holbrook. Wallace Group, February 6, 2014.

Denise Duffy & Assoc (Duffy) (2013) California Flats Solar Project, Hydrology and Water Quality, CEQA Impact Assessment. Prepared for California Flats Solar, LLC, Portland OR.

Huff V (2013) Memorandum, California Flats Solar Project – Drainage Peer Review. Wallace Group, June 17 2013.

Natural Resources Conservation Service (NRCS) (1986) Urban Hydrology for Small Watersheds, TR-55. U.S. Dept of Agriculture. June 1986

RBF Consulting (RBF) (2013) California Flats Solar Project, Preliminary Drainage Report. Present as Appendix J.1 in California Flats Solar Project, Draft Environmental Impact Report

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Curriculum Vitae

Objective: To provide diverse research and consulting services to nonprofit, government, legal and industry clients focusing on hydrogeology specializing in mine dewatering, contaminant transport, natural gas development, groundwater modeling, NEPA analysis, federal and state regulatory review, and fluvial morphology.

Education

| Years | Degree | University |
|---------|---------------------------------|---|
| 1992-96 | Ph.D. Hydrology/Hydrogeology | University of Nevada, Reno Dissertation: Stochastic Structure of Rangeland Streams |
| 1990-92 | | University of Arizona, Tucson AZ Classes in pursuit of Ph.D. in Hydrology. |
| 1988-90 | M.S. Hydrology/Hydrogeology | University of Nevada, Reno Thesis: Stream Morphology, Stability and Habitat in Northern Nevada |
| 1981-83 | | University of Colorado, Denver, CO Graduate level water resources engineering classes. |
| 1977-81 | B.S., Civil Engineering | University of Colorado, Boulder, CO |

Professional Experience

| Years | Position | Duties |
|-----------|---|---|
| 1993-Pr. | Hydrologic Consultant | Completion of hydrogeology studies and testimony focusing on mine dewatering, groundwater modeling, natural gas development, contaminant transport, NEPA review, and water rights for nonprofit groups and government agencies. |
| 1999-2004 | Great Basin Mine Watch, Exec Director | Responsible for reviewing and commenting on mining projects with a focus on groundwater and surface water resources, preparing appeals and litigation, organizational development and personnel management. |
| 1992-1997 | Univ of NV, Reno, Res. Assoc. | Research on riparian area and watershed management including stream morphology, aquatic habitat, cattle grazing and low-flow and flood hydrology. |
| 1990-1992 | U of AZ, Res. and Teach. Assistant | Research on rainfall/runoff processes and climate models. Taught lab sections for sophomore level "Principles of Hydrology". Received 1992 Outstanding Graduate Teaching Assistant Award in the College of Engineering |
| 1988-1990 | U of NV, Reno Res. Asst | Research on aquatic habitat, stream morphology and livestock management. |
| 1983-1988 | US Bureau of Reclamation Hydraulic Eng. | Performed hydrology planning studies on topics including floodplains, water supply, flood control, salt balance, irrigation efficiencies, sediment transport, rainfall-runoff modeling and groundwater balances. |

Peer-Reviewed Publications

- Myers, T., 2013. Remediation scenarios for selenium contamination, Blackfoot Watershed, southeast Idaho, USA. *Hydrogeology*. DOI 10.1007/s10040-013-0953-8
- Myers, T., 2013. Reservoir loss rates from Lake Powell and their impact on management of the Colorado River. *Journal of the American Water Resources Association*. DOI: 10.1111/jawr.12081.
- Myers, T., 2012. Potential contaminant pathways from hydraulically fractured shale to aquifers. *Ground Water* 50(6): 872-882. doi: 10.1111/j.1745-6584.2012.00933.x
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| Years | Course | Sponsor |
|-------------|---|------------------------------------|
| 2011 | Hydraulic Fracturing of the Marcellus Shale | National Groundwater Association |
| 2008 | Fractured Rock Analysis | MidWest Geoscience |
| 2005 | Groundwater Sampling Field Course | Nielson Environmental Field School |
| 2004 | Environmental Forensics | National Groundwater Association |
| 2004 and -5 | Groundwater and Environmental Law | National Groundwater Association |

ATTACHMENT D

Avian Mortality at Solar Energy Facilities in Southern California: A Preliminary Analysis

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National Fish and Wildlife Forensics Laboratory

Executive Summary

This report summarizes data on bird mortality at three solar energy facilities in southern California: Desert Sunlight, Genesis, and Ivanpah. These facilities use different solar technologies, but avian mortality was documented at each site. Desert Sunlight is a photovoltaic facility, Genesis employs a trough system with parabolic mirrors, and Ivanpah uses a power tower as a focal point for solar flux.

FINDINGS

Trauma was the leading cause of death documented for remains at the Desert Sunlight and Genesis sites. Trauma and solar flux injury were both major causes of mortality at the Ivanpah site. Exposure to solar flux caused singeing of feathers, which resulted in mortality in several ways. Severe singeing of flight feathers caused catastrophic loss of flying ability, leading to death by impact with the ground or other objects. Less severe singeing led to impairment of flight capability, reducing ability to forage and evade predators, leading to starvation or predation. Our examinations did not find evidence for significant tissue burns or eye damage caused by exposure to solar flux.

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| Cause of Death | Ivanpah | Genesis | Desert Sunlight | Total |
|--|------------|-----------|-----------------|------------|
| Solar Flux | 47 | 0 | 0 | 47 |
| Impact trauma | 24 | 6 | 19 | 49 |
| Predation trauma | 5 | 2 | 15 | 22 |
| Trauma of undetermined cause | 14 | 0 | 0 | 14 |
| Electrocution | 1 | 0 | 0 | 1 |
| Emaciation | 1 | 0 | 0 | 1 |
| Undetermined (remains in poor condition) | 46 | 17 | 22 | 85 |
| No evident cause of death | 3 | 6 | 5 | 14 |
| Total | 141 | 31 | 61 | 233 |

These solar facilities appear to represent “equal-opportunity” hazards for the bird species that encounter them. The remains of 71 species were identified, representing a broad range of ecological types. In body size, these ranged from hummingbirds to pelicans; in ecological type from strictly aerial feeders

(swallows) to strictly aquatic feeders (grebes) to ground feeders (roadrunners) to raptors (hawks and owls). The species identified were equally divided among resident and non-resident species, and nocturnal as well as diurnal species were represented. Although not analyzed in detail, there was also significant bat and insect mortality at the Ivanpah site, including monarch butterflies. It appears that Ivanpah may act as a “**mega-trap**,” attracting insects which in turn attract insect-eating birds, which are incapacitated by solar flux injury, thus attracting predators and creating an entire food chain vulnerable to injury and death.

| SITE | No. Remains | Identifiable Remains | Foraging Zone | | | Residency Status | |
|---------------|-------------|----------------------|---------------|------------|-----------|------------------|------------|
| | | | Air | Terr | Water | Resident | Migrant |
| Ivanpah | 141 | 127 | 28 | 85 | 14 | 63 | 64 |
| Genesis | 31 | 30 | 12 | 12 | 6 | 20 | 10 |
| Desert Sun | 61 | 56 | 7 | 22 | 27 | 18 | 38 |
| TOTALS | 233 | 213 | 47 | 119 | 47 | 101 | 112 |

CONCLUSIONS AND RECOMMENDATIONS

In summary, three main causes of avian mortality were identified at these facilities: impact trauma, solar flux, and predation. Birds at all three types of solar plants were susceptible to impact trauma and predators. Predation was documented mostly at the photovoltaic site, and in many cases appeared to be associated with stranding or nonfatal impact trauma with the panels, leaving birds vulnerable to resident predators. Solar flux injury, resulting from exposures to up to 800° F, was unique to the power tower facility. Our findings demonstrate that a broad ecological variety of birds are vulnerable to morbidity and mortality at solar facilities, though some differential mortality trends were evident, such as waterbirds at Desert Sunlight, where open water sources were present; and insectivores at Ivanpah, where insects are attracted to the solar tower.

12.D.1

Specific hazards were identified, including vertically-oriented mirrors or other smooth reflective panels; water-like reflective or polarizing panels; actively fluxing towers; open bodies of water; aggregations of insects that attracted insectivorous birds; and resident predators. Making towers, ponds and panels less attractive or accessible to birds may mitigate deaths. Specific actions should include:

Monitoring/detection measures:

- 1) Install video cameras sufficient to provide 360 degree coverage around each tower to record birds (and bats) entering and exiting the flux
- 2) For at least two years (and in addition to planned monitoring protocol), conduct daily surveys for birds (at all three facilities), as well as insects and bats (in the condenser building at Ivanpah) around each tower at the base of and immediately adjacent to the towers in the area cleared of vegetation. Timing of daily surveys can be adjusted to minimize scavenger removal of carcasses as recommended by the TAC. Surveys in the late afternoon might be optimal for bird carcasses, and first light for bat carcasses.

- 3) Use dogs for monitoring surveys to detect dead and injured birds that have hidden themselves in the brush, both inside and outside the perimeter of the facility
- 4) To decrease removal of carcasses, implement appropriate raven deterrent actions

Bird Mortality Avoidance Measures:

- 1) Increase cleared area around tower at Ivanpah to decrease attractive habitat, at least out to fence
- 2) Retrofit visual cues to existing panels at all three facilities and incorporate into new panel design. These cues should include UV-reflective or solid, contrasting bands spaced no further than 28 cm from each other
- 3) Suspend power tower operation during peak migration times for indicated species
- 4) Avoid vertical orientation of mirrors whenever possible, for example tilt mirrors during washing
- 5) Properly net or otherwise cover ponds
- 6) Place perch deterrent devices where indicated, eg. on tower railings near the flux field
- 7) Employ exclusionary measures to prevent bats from roosting in and around the condenser facility at Ivanpah.

It must be emphasized that we currently have a very incomplete knowledge of the scope of avian mortality at these solar facilities. Challenges to data collection include large facilities which are difficult to efficiently search for carcasses; vegetation and panels obscuring ground visibility; carcass loss due to scavenging; rapid degradation of carcass quality hindering cause of death and species determination; and inconsistent documentation of carcass history.

To rectify this problem, video cameras should be added to the solar towers to record bird mortality and daily surveys of the area at the base of and immediately adjacent to the towers should be conducted. At all the facilities, a protocol for systematic, statistically-rigorous searches for avian remains should be developed, emphasizing those areas where avian mortality is most likely to occur. Investigation into bat and insect mortalities at the power tower site should also be pursued.

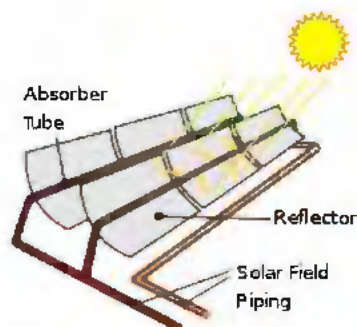
Finally, there are presently little data available on how solar flux affects birds and insects. Studies of the temperatures experienced by objects in the flux, of the effects of high temperatures on feather structure and function, and of the behavior of insects and birds in response to the flux and related phenomena (e.g. "light clouds") are all essential if we are to understand the scope of solar facility effects on wildlife.

12.D.1

Introduction

The National Fish and Wildlife Forensics Laboratory was requested to determine cause of death for birds found at facilities that generate electricity from solar energy. Solar generating facilities can be classified into three major types: photovoltaic sites, trough systems and solar power towers. There is much written about these systems so this report will not include any technical details, but simply mention the differences and their potential impact on birds.

1) **Photovoltaic systems** directly convert the sun's light into electricity. The perceived threat to birds is associated with the presence of water ponds which attract birds and from traumatic impact with the photovoltaic cells. An example of this type of solar power plant is Desert Sunlight Solar Farm (AKA First Solar).



2) **Trough systems** are composed of parabolic mirrors which focus and reflect the sun to a tube that converts the heat from the sun into electricity. The perceived threat to birds is associated with the presence of water ponds which attract birds and from traumatic impact with the trough structures. An example of this type of solar power plant is Genesis Solar Energy Project.

12.D.1

3) **Solar power towers** use thousands of mirrors to reflect the solar energy to a tower, where water in a boiler is converted to steam, generating the electricity. The perceived threat to birds is associated traumatic impact with the mirrors and the danger associated with the heat produced by the mirrors. An example of this type of solar power plant is Ivanpah Solar Electric Generating System.



Methods

Carcasses were collected at the different solar power plant sites by either US Fish and Wildlife Service employees or by energy company staff. The collection of the carcasses was opportunistic; that is, not according to a pre-determined sampling schedule or protocol. There was no attempt to quantify the number of carcasses that scavengers or predators removed from the solar facilities' grounds, or to compare the distribution of carcasses inside and outside the boundaries of the solar facility sites.

Additionally, three USFWS/-OLE staff, including two Forensics Lab staff (EOE and RAK), visited the Ivanpah Solar plant from October 21 – 24, 2013. Their on-site observations are included in this report.

A total of 233 birds collected from three different facilities were examined: 141 from a solar thermal power tower site (Ivanpah, Bright Source Inc.), 31 from a parabolic trough site (Genesis, NextEra Energy Inc.) and 61 from a photovoltaic (PV) panel site (Desert Sunlight, First Solar Inc.). Nine of the Ivanpah birds were received fresh; 7 of those were necropsied during a site visit by a Forensics Laboratory pathologist (RAK). The rest of the birds were received frozen and allowed to thaw at room temperature prior to species identification and necropsy. Species determination was made by the Forensics Laboratory ornithologist (PWT) for all birds either prior to necropsy or, for those necropsied on-site, from photos and the formalin-fixed head. All data on carcass history (location of the carcass, date of collection and any additional observations) were transcribed, although these were not available for all carcasses.

As part of the gross pathological examination, whole carcasses were radiographed to help evaluate limb fractures and identify any metal foreign bodies. Alternate light source examination using an Omnicrome Spectrum 9000+ at 570 nm with a red filter helped rule in or out feather burns by highlighting subtle areas of feather charring (Viner et al., 2014). All birds or bird parts from Ivanpah without obvious burns were examined with the alternate light source, as well as any bird reportedly found near a power line and a random sub-sample of the remaining birds from Genesis and Desert Sunlight (Viner, T. C., R. A. Kagan, and J. L. Johnson, 2014. Using an alternate light source to detect electrically singed feathers and hair in a forensic setting. *Forensic Science International*, v. 234, p. e25-e29).

Carcass quality varied markedly. If carcasses were in good post mortem condition, representative sections of heart, lung, kidney, liver, brain and gastrointestinal tract as well as any tissues with gross lesions were collected and fixed in 10% buffered formalin. Full tissue sets were collected from the fresh specimens. Formalin-fixed tissues were routinely processed for histopathology, paraffin-embedded, cut at 4 µm and stained with hematoxylin and eosin. Tissues from 63 birds were examined microscopically: 41 from Ivanpah, 1 from Genesis and 21 from Desert Sunlight.

Birds with feather burns were graded based on the extent of the lesions. Grade 1 birds had curling of less than 50% of the flight feathers. Grade 2 birds had curling of 50% or more of the flight feathers. Grade 3 birds had curling and visible charring of contour feathers (Figure 1).

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Figure 1: Three grades of flux injury based on extent and severity of burning. Grade 1 (top); Yellow-rumped Warbler with less than 50% of the flight feathers affected (note sparing of the yellow rump feathers). Grade 2 (middle); Northern Rough-winged Swallow initially found alive but unable to fly, with greater than 50% of the flight feathers affected. Grade 3 (bottom); MacGillivray's Warbler with charring of feathers around the head, neck, wings and tail.

Bird Species Recovered at Solar Power Facilities

Tables 1-4 and Appendix 1 summarize 211 identifiable bird remains recovered from the three solar facilities included in this study. These birds constitute a taxonomically diverse assemblage of 71 species, representing a broad range of ecological types. In body size, these species ranged from hummingbirds to pelicans, in ecological type from strictly aerial feeders (e.g. swifts and swallows) to strictly aquatic feeders (pelicans and cormorants) to ground feeders (roadrunners) to raptors (hawks and owls). The species identified were equally divided among resident and non-

resident species. Nocturnal as well as diurnal species were represented.

In Tables 1-4 and Appendix 1, bird species are categorized into very general ecological types by foraging zone and residency status. Foraging Zones were "air" (a significant portion of foraging activity performed in the air), "terrestrial" (including foraging both in vegetation and on the ground), and "water" (foraging associated with water, including waders as well as aquatic birds). Residency Status was "resident" (for breeding or year-round residents) and "migrant" (for both passage migrants and non-breeding-season residents). For a number of species, the appropriate classification for residency status was uncertain, due to a lack of detailed knowledge of the sites. The present classification is based on published range maps, and is subject to revision as more information becomes available.

This dataset is not suitable for statistical analysis, due to the opportunistic and unstandardized collection of avian remains at the facilities, and the lack of baseline data on bird diversity and abundance at each site. Nevertheless, a few conclusions can be noted. First, these data do not support the idea that these solar facilities are attracting particular species. Of the 71 bird species identified in remains, only five species were recovered from all three sites. These five were American Coot, Mourning Dove, Lesser Nighthawk, Tree Swallow, and Brown-headed Cowbird, again emphasizing the ecological variety of birds vulnerable to mortality at the solar facilities. Over two-thirds (67%) of the species were found at only a single site

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(Appendix 1). That being said, the Desert Sunlight facility had particularly high mortality among waterbirds, suggesting a need to render the ponds at that site inaccessible or unattractive to these species.

The diversity of birds dying at these solar facilities, and the differences among sites, suggest that there is no simple “fix” to reduce avian mortality. These sites appear to represent “equal-opportunity” mortality hazards for the bird species that encounter them. Actions to reduce or mitigate avian mortality at solar facilities will need to be designed on a site-specific basis, and will require much more data on the bird communities at each site, and on how mortality is occurring. Carefully-designed mortality studies might reveal significant patterns of vulnerability that are not evident in these data.

Table 1. Summary data on avian mortality at the three solar sites included in this study. See summary for discussion of Foraging Zone and Residency Status categories.

| SITE | No. Species | No. Remains | Identifiable Remains | Foraging Zone | | | Residency Status | |
|---------------|-------------|-------------|----------------------|---------------|------------|-----------|------------------|------------|
| | | | | Air | Terr | Water | Resident | Migrant |
| Ivanpah | 49 | 141 | 127 | 26 | 85 | 14 | 63 | 64 |
| Genesis | 15 | 31 | 30 | 12 | 12 | 6 | 20 | 10 |
| Desert Sun | 33 | 61 | 56 | 7 | 22 | 27 | 18 | 38 |
| TOTALS | 71 | 233 | 213 | 47 | 119 | 47 | 101 | 112 |

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Table 2. Species identified from avian remains at the Desert Sunlight photovoltaic solar facility. MNI = minimum number of individuals of each species represented by the identifiable remains. In some cases (e.g. Cinnamon/Blue-winged Teal), closely related species could not be distinguished based on the available remains, but the Foraging Zone and Residency Status could still be coded, due to the ecological similarities of the species involved. Total identified birds = 56.

| DESERT SUNLIGHT | | Zone | Residency | MNI |
|-----------------------------|--------------------------------------|-------|-----------|-----|
| Pied-billed Grebe | <i>Podilymbus podiceps</i> | water | migrant | 1 |
| Eared Grebe | <i>Podiceps nigricollis</i> | water | migrant | 3 |
| Sora | <i>Porzana carolina</i> | water | migrant | 1 |
| American Avocet | <i>Recurvirostra americana</i> | water | migrant | 1 |
| Cinnamon/Blue-winged Teal | <i>Anas discors/clypeata</i> | water | migrant | 1 |
| Western Grebe | <i>Aechmophorus occidentalis</i> | water | migrant | 9 |
| Brown Pelican | <i>Pelecanus occidentalis</i> | water | migrant | 2 |
| Double-crested Cormorant | <i>Phalacrocorax auritus</i> | water | migrant | 2 |
| Black-crowned Night-Heron | <i>Nycticorax nycticorax</i> | water | migrant | 1 |
| Yuma Clapper Rail | <i>Rallus longirostris</i> | water | resident | 1 |
| American Coot | <i>Fulica americana</i> | water | migrant | 5 |
| Mourning Dove | <i>Zenaida macroura</i> | terr | resident | 3 |
| White-winged Dove | <i>Zenaida asiatica</i> | terr | resident | 1 |
| Lesser Nighthawk | <i>Chordeiles acutipennis</i> | air | resident | 2 |
| Common Poorwill | <i>Phalaenoptilus nuttallii</i> | air | resident | 1 |
| Costa's Hummingbird | <i>Calypte costae</i> | air | resident | 1 |
| Ash-throated Flycatcher | <i>Myiarchus cinerascens</i> | air | resident | 1 |
| Black-throated/Sage Sparrow | <i>Amphispiza sp.</i> | terr | resident | 1 |
| Black Phoebe | <i>Sayornis nigricollis</i> | air | resident | 1 |
| Loggerhead Shrike | <i>Lanius ludovicianus</i> | terr | resident | 2 |
| Common Raven | <i>Corvus corax</i> | terr | resident | 1 |
| Horned Lark | <i>Eremophila alpestris</i> | terr | migrant | 1 |
| Tree Swallow | <i>Tachycineta bicolor</i> | air | migrant | 1 |
| Townsend's Warbler | <i>Setophaga townsendi</i> | terr | migrant | 2 |
| Common Yellowthroat | <i>Geothlypis trichas</i> | terr | migrant | 1 |
| Savannah Sparrow | <i>Passerculus sandwichensis</i> | terr | migrant | 1 |
| Yellow-headed Blackbird | <i>Xanthocephalus xanthocephalus</i> | terr | migrant | 1 |
| Wilson's Warbler | <i>Cardellina pusilla</i> | terr | migrant | 2 |
| Western Tanager | <i>Piranga ludoviciana</i> | terr | migrant | 2 |
| Black-headed Grosbeak | <i>Pheucticus melanocephalus</i> | terr | migrant | 1 |
| Great-tailed Grackle | <i>Quiscalus mexicanus</i> | terr | resident | 2 |
| Brown-headed Cowbird | <i>Molothrus ater</i> | terr | resident | 1 |

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Table 3. Species identified from avian remains at the Genesis trough system solar facility. Total identified birds = 30.

| GENESIS | | Zone | Residency | MINI |
|------------------------------|----------------------------------|-------------|------------------|-------------|
| Eared Grebe | <i>Podiceps nigricollis</i> | water | migrant | 2 |
| Great Blue Heron | <i>Ardea herodias</i> | water | migrant | 1 |
| American Kestrel | <i>Falco sparverius</i> | air | resident | 1 |
| Ring-billed Gull | <i>Larus delawarensis</i> | water | migrant | 2 |
| California Gull | <i>Larus californianus</i> | water | resident | 1 |
| White-winged Dove | <i>Zenaida asiatica</i> | terr | resident | 1 |
| Lesser Nighthawk | <i>Chordeiles acutipennis</i> | air | resident | 2 |
| Say's Phoebe | <i>Sayornis saya</i> | air | resident | 2 |
| Tree Swallow | <i>Tachycineta bicolor</i> | air | migrant | 2 |
| Cliff Swallow | <i>Petrochelidon pyrrhonota</i> | air | resident | 5 |
| Hermit Warbler | <i>Setophaga occidentalis</i> | terr | migrant | 1 |
| Black-headed Grosbeak | <i>Pheucticus melanocephalus</i> | terr | migrant | 1 |
| Chipping Sparrow | <i>Spizella passerina</i> | terr | resident | 1 |
| Bullock's Oriole | <i>Icterus bullockii</i> | terr | resident | 2 |
| Brown-headed Cowbird | <i>Molothrus ater</i> | terr | resident | 6 |

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Table 4. Species identified from avian remains at the Ivanpah power tower solar facility. Total identified birds = 127

| IVANPAH | | Zone | Residency | MNI |
|-------------------------------|-----------------------------------|-------|-----------|-----|
| Cinnamon Teal | <i>Anas cyanoptera</i> | water | migrant | 4 |
| Cooper's Hawk | <i>Accipiter cooperii</i> | air | migrant | 1 |
| Red-shouldered Hawk | <i>Buteo lineatus</i> | terr | migrant | 1 |
| American Kestrel | <i>Falco sparverius</i> | air | resident | 1 |
| Peregrine Falcon | <i>Falco peregrinus</i> | air | resident | 1 |
| American Coot | <i>Fulica americana</i> | water | migrant | 7 |
| Sora | <i>Porzana carolina</i> | water | migrant | 1 |
| Spotted Sandpiper | <i>Actitis maculatus</i> | water | migrant | 2 |
| Greater Roadrunner | <i>Geococcyx californianus</i> | terr | resident | 5 |
| Yellow-billed Cuckoo | <i>Coccyzus americanus</i> | terr | migrant | 1 |
| Mourning Dove | <i>Zenaidura macroura</i> | terr | resident | 11 |
| Barn Owl | <i>Tyto alba</i> | terr | resident | 1 |
| Lesser Nighthawk | <i>Chordeiles acutipennis</i> | air | resident | 3 |
| Common Poorwill | <i>Phalaenoptilus nuttallii</i> | air | resident | 1 |
| White-throated Swift | <i>Aeronautes saxatalis</i> | air | resident | 1 |
| Allen's/Rufous Hummingbird | <i>Selasphorus sp.</i> | air | migrant | 1 |
| Northern Flicker | <i>Colaptes auratus</i> | terr | resident | 1 |
| Ash-throated Flycatcher | <i>Myiarchus cinerascens</i> | air | resident | 1 |
| Loggerhead Shrike | <i>Lanius ludovicianus</i> | terr | resident | 3 |
| Warbling Vireo | <i>Vireo gilvus</i> | terr | migrant | 1 |
| Common Raven | <i>Corvus corax</i> | terr | resident | 2 |
| Northern Rough-winged Swallow | <i>Stelgidopteryx serripennis</i> | air | migrant | 2 |
| Tree Swallow | <i>Tachycineta bicolor</i> | air | migrant | 2 |
| Verdin | <i>Auriparus flaviceps</i> | terr | resident | 3 |
| Blue-gray Gnatcatcher | <i>Polioptila caerulea</i> | terr | resident | 1 |
| Northern Mockingbird | <i>Mimus polyglottos</i> | terr | resident | 1 |
| American Pipit | <i>Anthus rubescens</i> | terr | migrant | 4 |
| Orange-crowned Warbler | <i>Oreothlypis celata</i> | terr | migrant | 1 |
| Lucy's Warbler | <i>Oreothlypis luciae</i> | terr | resident | 1 |
| Black-throated Gray Warbler | <i>Setophaga nigrescens</i> | terr | migrant | 1 |
| Yellow-rumped Warbler | <i>Setophaga coronata</i> | air | migrant | 14 |
| Townsend's Warbler | <i>Setophaga townsendi</i> | terr | migrant | 2 |
| Yellow Warbler | <i>Setophaga petechia</i> | terr | migrant | 1 |
| Black-and-white Warbler | <i>Mniotilta varia</i> | terr | migrant | 1 |
| Wilson's Warbler | <i>Cardellina pusilla</i> | terr | migrant | 2 |
| MacGillivray's Warbler | <i>Oporornis tolmiei</i> | terr | migrant | 1 |
| Western Tanager | <i>Piranga ludoviciana</i> | terr | migrant | 2 |
| Lazuli Bunting | <i>Passerina amoena</i> | terr | migrant | 1 |
| Blue Grosbeak | <i>Passerina caerulea</i> | terr | resident | 1 |
| Green-tailed Towhee | <i>Pipilo chlorurus</i> | terr | migrant | 1 |
| Brewer's Sparrow | <i>Spizella breweri</i> | terr | resident | 3 |
| Chipping Sparrow | <i>Spizella passerina</i> | terr | resident | 3 |
| Black-throated Sparrow | <i>Amphispiza bilineata</i> | terr | resident | 3 |
| Savannah Sparrow | <i>Passerculus sandwichensis</i> | terr | migrant | 2 |
| White-crowned Sparrow | <i>Zonotrichia leucophrys</i> | terr | migrant | 6 |

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| IVANPAH | | Zone | Residency | MNI |
|----------------------|-----------------------------|------|-----------|-----|
| Pine Siskin | <i>Spinus pinus</i> | terr | migrant | 1 |
| House Finch | <i>Carpodacus mexicanus</i> | terr | resident | 13 |
| Brown-headed Cowbird | <i>Molothrus ater</i> | terr | resident | 1 |
| Great-tailed Grackle | <i>Quiscalus mexicanus</i> | terr | resident | 1 |

Cause of Death of Birds Found at the Solar Power Plants

Photovoltaic facility (Desert Sunlight):

Sixty-one birds from 33 separate species were represented from Desert Sunlight. Due to desiccation and scavenging, a definitive cause of death could not be established for 22 of the 61 birds (see Table 5). Feathers could be examined in all cases, however, and none of the 61 bird remains submitted from the PV facility had visible evidence of feather singeing, a clear contrast with birds found at Ivanpah.

Blunt force impact trauma was determined to have been the cause of death for 19 Desert Sunlight birds including two Western Grebes

(*Aechmophorus occidentalis*) and one each of 16 other species. Impact (blunt force) trauma is diagnosed by the presence of fractures and internal and/or external contusions. In particular, bruising around the legs, wings and chest are consistent with crash-landings while fractures of the head and/or neck are consistent with high-velocity, frontal impact (such as may result from impacting a mirror).

Predation was the immediate cause of death for 15 birds. Lesions supporting the finding of predation included decapitation or missing parts of the body with associated hemorrhage (9/15), and lacerations of the skin and pectoral muscles. Eight of the predated birds from Desert Sunlight were

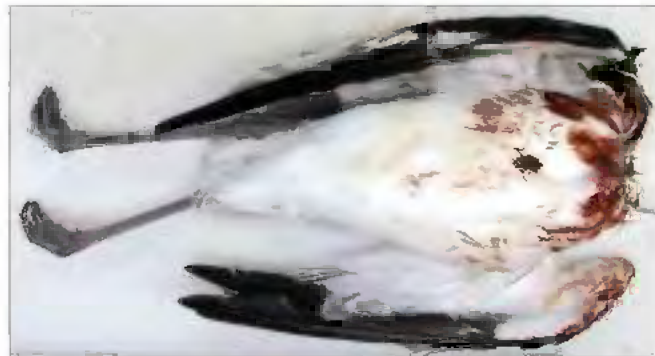


Figure 2: Predation trauma (top) resulting in traumatic amputation of the head and neck (American Avocet) and impact trauma (bottom) causing bruising of the keel ridge of the sternum (Brown Pelican).

grebes, which are unable to easily take off from land. This suggests a link between predation and stranding and/or impact resulting from confusion of the solar panels with water (see Discussion).

Parabolic trough facility (Genesis):

Thirty-one birds were collected from this site. There were 15 species represented. Those found in the greatest numbers were Brown-headed Cowbirds and Cliff Swallows, though no more than 6 individuals from any given species were recovered. Overall, carcass quality was poor and precluded definitive cause of death determination in 17/31 birds (Table 5). Identifiable causes of death consisted of impact trauma (6/31) and predation trauma (2/31). Necropsy findings were similar to those at Desert Sunlight with fractures and hemorrhage noted grossly. Predation trauma was diagnosed in two birds, a Cliff Swallow and a Ring-billed Gull.

Power tower facility (Ivanpah):

Ivanpah is the only facility in this study that produces solar flux, which is intense radiant energy focused by the mirror array on the power-generating tower. Objects that pass through this flux, including insects and birds, encounter extreme heat, although the extent of heating depends on many variables, including the duration of exposure and the precise location in the flux beam.

From Ivanpah, 141 birds were collected and examined. Collection dates spanned a period of one year and five months (July 2012 to December 2013) and included at least seven months of construction during which time the towers were not actively fluxing (2013). There were 49 species represented (Table 4). Those found in the greatest numbers were Yellow-rumped Warblers (*Setophaga coronata*; 14), House Finches (*Carpodacus mexicanus*; 13), Mourning Doves (*Zenaida macroura*; 11) and American Coots (*Fulica americana*; 7). Yellow-rumped Warblers and House Finches were found exclusively at the power tower site.

Solar flux injury was identified as the cause of death in 47/141 birds. Solar flux burns manifested as feather curling, charring, melting and/or breakage and loss. Flight feathers of the tail and/or wings were invariably affected. Burns also tended to occur in one or more of the following areas; the sides of the body (axillae to pelvis), the dorsal coverts, the tops and/sides of the head and neck and the dorsal body wall (the back). Overlapping portions of feathers and light-colored feathers were often spared (Figures 3 and 4).

Figure 3: contour feather from the back of a House Finch with Grade 3 solar flux injury. The feather has curling and charring limited to the exposed tip.



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Figure 4: Feather from a Peregrine Falcon with Grade 2 solar flux injury. Note burning of dark feather bands with relative sparing of light bands.

The yellow and red rumps of Yellow-rumped Warblers and House Finches respectively remained strikingly unaffected (See Figure 1). Charring of head feathers, in contrast, was generally diffuse across all color patterns. A pattern of spiraling bands of curled feathers across or around the body and wings was often apparent.

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Table 5. Cause of death (COD) data

| Cause of Death | Desert | | | Total |
|--|------------|-----------|-----------|------------|
| | Iyanpah | Genesis | Suplight | |
| Solar Flux | 47 | 0 | 0 | 47 |
| Impact trauma | 24 | 6 | 19 | 49 |
| Predation trauma | 8 | 2 | 12 | 22 |
| Trauma of undetermined cause | 14 | 0 | 0 | 14 |
| Electrocution | 1 | 0 | 0 | 1 |
| Emaciation | 1 | 0 | 0 | 1 |
| Undetermined (remains in poor condition) | 3 | 17 | 22 | 85 |
| No evident cause of death | 3 | 6 | 5 | 14 |
| Total | 141 | 31 | 61 | 233 |

Eight birds were assigned a feather damage Grade of 1 with curling of less than 50% of the flight feathers. Six of these had other evidence of acute trauma (75%). Five birds were Grade 2, including three birds that were found alive and died shortly afterwards. Of these birds, 2 (the birds found dead) also had evidence of acute trauma. Twenty-eight birds were Grade 3, with charring of body feathers. Of these birds, 21/28

(28%) had other evidence of acute trauma. Remaining carcasses (6) were incomplete and a grade could not be assigned.

Twenty-nine birds with solar flux burns also had evidence of impact trauma. Trauma consisted of skull fractures or indentations (8), sternum fractures (4), one or more rib fractures (4), vertebral fractures (1), leg fracture (3), wing fracture (1) and/or mandible fracture (1). Other signs of trauma included acute macroscopic and/or microscopic internal hemorrhage. Location found was reported for 39 of these birds; most of the intact carcasses were found near or in a tower. One was found in the inner heliostat ring and one was found (alive) on a road between tower sites. The date of carcass collection was provided for 42/47. None were found prior to the reported first flux (2013).



Figure 5: The dorsal aspect of the wing from a Peregrine Falcon (the same bird as shown in Figure 4) with Grade 2 lesions. Note extensive curling of feathers without visible charring. This bird was found alive, unable to fly, emaciated and died shortly thereafter. These findings demonstrate fatal loss of function due to solar flux exposure in the absence of skin or other soft tissue burns.

Among the solar flux cases, a variety of bird species were affected though all but one (a raptor) was a passerine (Appendix 2). House Finches and yellow-rumped Warblers were most often represented (10/47 and 12/47 respectively). For the birds in which species could be determined (41/47), insects were a major

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dietary component in all but two species. These were an unidentified hummingbird (*Selasphorus*) species (known to include insects in the diet) and a Peregrine Falcon (a species that feeds on small birds).

Four birds were reportedly found alive and taken to a wildlife rehabilitation center where they died one to a few days later (exact dates were not consistently provided). Three had Grade 2 feather burns and one had Grade 3 feather burns. None had other evidence of trauma. Body condition was reduced in all of the birds (two considered thin and two emaciated) based on a paucity of fat stores and depletion of skeletal musculing. The four birds were of four different species and consisted of three passerines and one raptor.

The second most commonly diagnosed cause of death at the Ivanpah facility was impact (or blunt force) trauma (24/141 birds). Necropsy findings were as previously described at the Desert Sunlight facility. Impact marks were reported on heliostat mirrors adjacent to the carcasses in 5 cases and mirrors were described as being vertically-oriented in 5 cases. Specific carcass locations were reported for 18 of the birds. Those birds were found in a variety of areas: below heliostats (8/18), in or near tower and powerblock buildings (4/18), on roads (2/18), below power lines (2/18), in the open (1/18) and by a desert tortoise pen (1/18).

Predation was determined to be the cause of death for five of the birds. A coot and a Mourning Dove were found with extensive trauma and hemorrhage to the head and upper body consisting of lacerations, crush trauma and/or decapitation. One of the birds (an American Coot) was found near a kit fox shelter site. One bird (Northern Mockingbird) was found near the fence line and the third (a Mourning Dove) in an alley way. Two more birds (an unidentified sparrow and an American Pipit) were observed being eaten by one of the resident Common Ravens.

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Discussion of Cause of Death of Birds Found at the Solar Power Plants

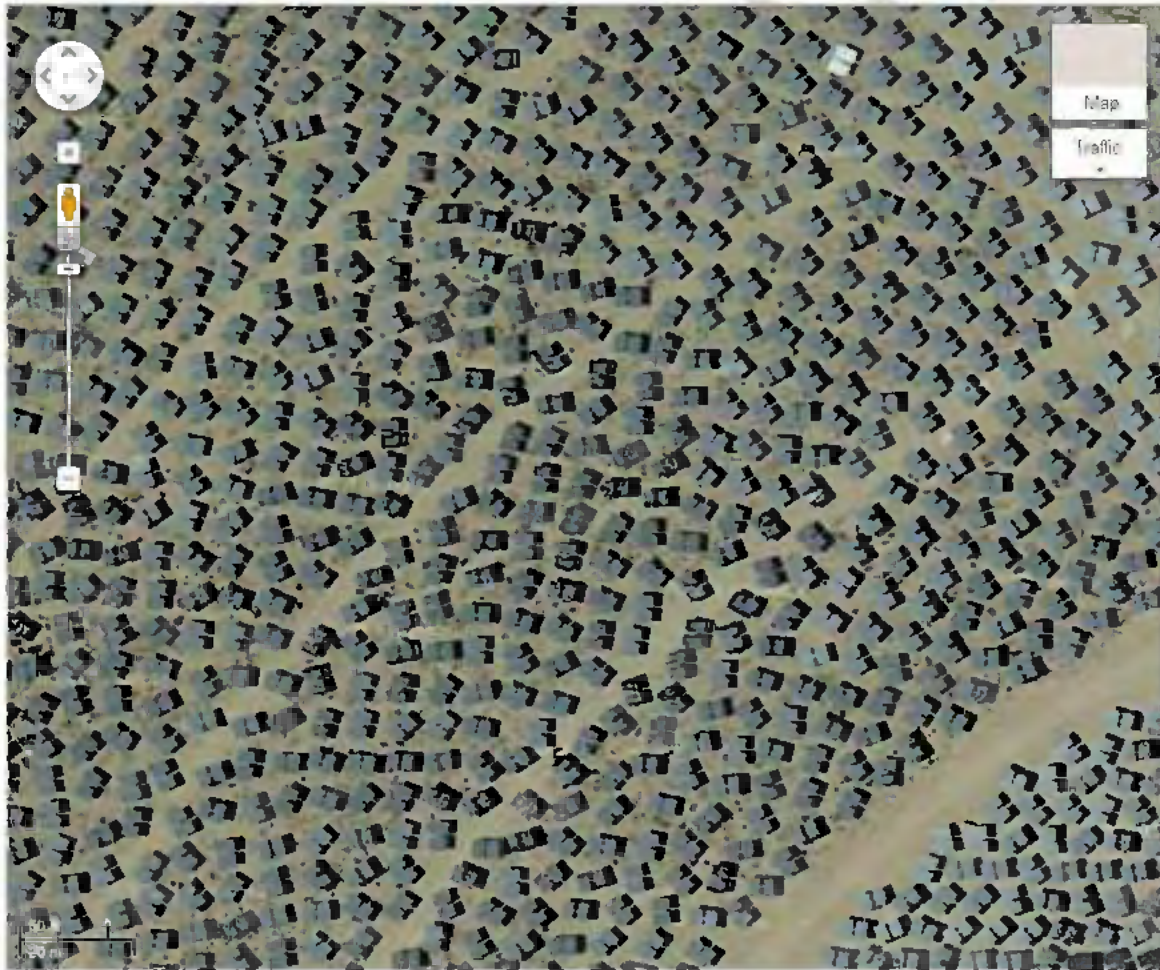
Impact trauma:

Sheet glass used in commercial and residential buildings has been well-established as a hazard for birds, especially passerines (Klem 1990, 2004, 2006, Loss et al. 2014). A recent comprehensive review estimated that between 365-988 million birds die annually by impacting glass panels in the United States alone (median estimate 599 million; Loss et al. 2014). Conditions that precipitate window strike events include the positioning of vegetation on either side of the glass and the reflective properties of the window. Glass panels that reflect trees and other attractive habitat are involved in a higher number of bird collisions.

The mirrors and photovoltaic panels used at all three facilities are movable and generally directed upwardly, reflecting the sky. At the Ivanpah facility, when heliostats are oriented vertically (typically for washing or installation, personal communication, RAK) they appear to pose a greater risk for birds. Of the eight birds reported found under a heliostat, heliostats were vertically-oriented in at least 5 cases. (D Klem Jr., DC Keck, KL Marty, AJ Miller Ball, EE Niciu, and CT Platt. 2004. Effects of window angling, feeder placement, and scavengers on avian mortality at plate glass. *Wilson Bulletin*. 116(1):69-73; D Klem Jr. 2006. Glass: A deadly conservation issue for birds. *Bird Observer* 34(2):73-81; D Klem Jr. 1990.

Collisions between birds and windows: mortality and prevention. *Journal of Field Ornithology* 61:120–128. Loss, S.R., T. Will, S.S. Loss, and P.P. Marra. 2014. Bird-building collisions in the United States: Estimates of annual mortality and species vulnerability. *Condor* 116: 8-23). Studies with aquatic insects have found that vertically-oriented black glass surfaces (similar to solar panels) produced highly polarized reflected light, making them highly attractive (Kriska, G., P. Makik, I. Szivak, and G. Horvath. 2008. Glass buildings on river banks as “polarized light traps” for mass-swarming polarotactic caddis flies. *Naturwissenschaften* 95: 461–467).

A desert environment punctuated by a large expanse of reflective, blue panels may be reminiscent of a large body of water. Birds for which the primary habitat is water, including coots, grebes, and cormorants, were over-represented in mortalities at the Desert Sunlight facility (4.4%) compared to Genesis (19%) and Ivanpah (10%). Several factors may inform these observations. First, the size and continuity of the panels differs between facilities. Mirrors at Ivanpah are individual, 4 x 8' panels that appear from above as stippling in a desert background (Figure 6). Photovoltaic panels at Desert Sunlight are long banks of adjacent 27.72 x 47.25" panels (70 x 120 cm), providing a more continuous, sky/water appearance. Similarly, troughs at Genesis are banks of 5 x 5.5' panels that are up to 49-65 meters long.



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Figure 6: The Ivanpah Solar Electric Generating System as seen via satellite. The mirrored panels are 5 x 8 feet.

There is growing concern about “polarized light pollution” as a source of mortality for wildlife, with evidence that photovoltaic panels may be particularly effective sources of polarized light in the environment (see Horvath et al. 2010. Reducing the maladaptive attractiveness of solar panels to polarotactic insects. Conservation Biology 24: 1644-1653, and ParkScience. Vol. 27, Number 1, 2010; available online at: <http://www.nature.nps.gov/parkscience/index.cfm?ArticleID=386&ArticleTypeID=5>; as well as discussion of this issue in the Desert Sunlight Final Environmental Impact Statement, Chapter 4, pp. 14-15).

Variables that may affect the illusory characteristics of solar panels are structural elements or markings that may break up the reflection. Visual markers spaced at a distance of 28 cm or less have been shown to reduce the number of window strike events on large commercial buildings (City of Toronto Green Development Standard: Bird-friendly development guidelines, March 2007). Mirrors at the Ivanpah facility are unobscured by structures or markings and present a diffuse reflective surface. Photovoltaic panels at Desert Sunlight are arranged as large banks of small units that are 60 x 90 cm. The visually uninterrupted expanse of both these types of heliostat is larger than that which provides a solid structure visual cue to passerines. Parabolic troughs at Genesis have large, diffusely reflective surfaces between seams that periodically transect the bank of panels at 5.5' intervals. Structures within the near field, including the linear concentrator and support arms, and their reflection in the panels and may provide a visual cue to differentiate the panel as a solid structure.

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The paper by Horvath et al cited above provides experimental evidence that placing a white outline and/or white grid lines on solar panels significantly reduced the attractiveness of these panels to aquatic insects, with a loss of only 1.8% in energy-producing surface area (p. 1651). While similar detailed studies have yet to be carried out with birds, this work, combined with the window strike results, suggest that significant reductions in avian mortality at solar facilities could be achieved by relatively minor modifications of panel and mirror design. This should be a priority for further research.

Finally, ponds are present on the property of the Desert Sunlight and Genesis facilities. The pond at Genesis is netted, reducing access by migratory birds, while the pond at Desert Sunlight is open to flighted wildlife. Thus, birds are both attracted to the water feature at Desert Sunlight and habituated to the presence of an accessible aquatic environment in the area. This may translate into the misinterpretation of a diffusely reflected sky or horizontal polarized light source as a body of water.

Stranding and Predation:

Predation is likely linked to panel-related impact trauma and stranding. Water birds were heavily over-represented in predation mortalities at Desert Sunlight. Of the 15 birds that died due to predation, 14 make their primary habitat on water (coots, grebes, a cormorant, and an avocet). A single White-winged Dove was the only terrestrial-based predation mortality in the submitted specimens. This is in contrast to blunt trauma mortalities at Desert Sunlight in which 8 of the 19 birds determined to have died of impact trauma were water species.

Locations of the birds when found dead were noted on several submissions. Of the birds that died of predation for which locations were known, none were located near ponds. The physiology of several of

these water birds is such that locomotion on land is difficult or impossible. Grebes in particular have very limited mobility on land and require a run across water in order to take off (Jehl, J. R., 1996. Mass mortality events of Eared Grebes in North America. *Journal of Field Ornithology* 67: 471-476). Thus, these birds likely did not reach their final location intentionally. Ponds at the PV and trough sites are fenced, prohibiting terrestrial access by predators. Birds on the water or banks of the pond are inaccessible to resident predators. Therefore, it is unlikely that the birds were captured at the pond and transported by a predator into the area of the panels. Attempts to land or feed on the panels because of their deceptive appearance may have injured the birds to the point that they could not escape to safety, or inadvertently stranded the birds on a substrate from which they could not take flight. We believe that an inability to quickly flee after striking the panels and stranding on the ground left these birds vulnerable to opportunistic predators. At least two types of predators, kit foxes and ravens, have been observed in residence at the power tower and PV facilities and ravens have been reported at the trough site (personal communication and observation, RAK). Additionally, histories for multiple birds found at the tower site document carcasses found near kit fox shelters or being eaten or carried by a raven.

Solar Flux:

Avian mortality due to exposure to solar flux has been previously explored and documented (McCrary, M. D., McKernan, R. L., Schreiber, R. W., Wagner, W. D., and Sciarrotta, T. C. Avian mortality at a solar energy power plant. *Journal of Field Ornithology*, 57(2): 135-141). Solar flux injury to the birds of this report, as expected, occurred only at the power tower facility. Flux injury grossly differed from other sources of heat injury, such as electrocution or fire. Electrocution injury requires the bridging of two contact points and is, therefore, seen almost exclusively in larger birds such as raptors. Contact points tend to be on the feet, carpi and/or head and burns are often found in these areas. Electrocution causes deep tissue damage as opposed to the surface damage of fire or solar flux. Other sequelae include amputation of limbs with burn marks on bone, blood vessel tears and pericardial hemorrhage. Burns from fires cause widespread charring and melting of feathers and soft tissues and histopathologic findings of soot inhalation or heat damage to the respiratory mucosa. None of these were characteristics of flux injury. In the flux cases small birds were over-represented, had burns generally limited to the feathers and internal injuries attributable to impact. Flux injury inconsistently resulted in charring, tended to affect feathers along the dorsal aspects of the wings and tail, and formed band-like patterns across the body (Divincenti, F. C., J. A. Moncrief, and B. A. Pruitt. 1969. Electrical injuries: a review of 65 cases. *The Journal of Trauma* 9: 497-507).

Proposed mechanisms of solar flux-related death follow one or a combination of the following pathways:

- impact trauma following direct heat damage to feathers and subsequent loss of flight ability
- starvation and/or thermoregulatory dysfunction following direct heat damage to feathers
- shock
- soft tissue damage following whole-body exposure to high heat
- ocular damage following exposure to bright light.

Necropsy findings from this study are most supportive of the first three mechanisms.

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Loss of feather integrity has effects on a bird's ability to take off, land, sustain flight and maneuver. Tail feathers are needed for lift production and maneuverability, remiges are needed for thrust and lift and feathers along the propatagium and coverts confer smoothness to the avian airfoil. Shortening of primary flight feathers by as little as 1.6 cm with loss of secondary and tertiary remiges has been shown to eliminate take-off ability in house sparrows further demonstrating the importance of these feathers (Brown, R. E., and A. C. Cogley. 1996. Contributions of the propatagium to avian flight: *Journal of Experimental Zoology* 276: 112-124). Loss of relatively few flight feathers can, therefore, render a bird unable or poorly-able to fly. Birds encountering the flux field at Ivanpah may fall as far as 400 feet after feather singeing. Signs of impact trauma were often observed in birds with feather burns and are supportive of sudden loss of function (Beaufriere, H., 2009. A review of biomechanic and aerodynamic considerations of the avian thoracic limb. *Journal of Avian Medicine and Surgery* 23: 173-185).

Birds appear to be able to survive flux burns in the short term, as evidenced by the collection of several live birds with singed feathers. Additionally, Forensic Lab staff observed a falcon or falcon-like bird with a plume of smoke arising from the tail as it passed through the flux field. Immediately after encountering the flux, the bird exhibited a controlled loss of stability and altitude but was able to cross the perimeter fence before landing. The bird could not be further located following a brief search (personal observation, RAK and EOE). Birds that initially survive the flux exposure and are able to glide to the ground or a perch may be disabled to the point that they cannot efficiently acquire food, escape predators or thermoregulate. Observations of emaciation in association with feather burns in birds found alive is supportive of debilitation subsequent to flux exposure. More observational studies and follow-up are required to understand how many birds survive flux exposure and whether survival is always merely short-term. As demonstrated by the falcon, injured birds (particularly larger birds), may be ambulatory enough to glide or walk over the property line indicating a need to include adjacent land in carcass searches.

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There was evidence of acute skin burns on the heads of some of the Grade 3 birds that were found dead. But interestingly, tissue burn effects could not be demonstrated in birds known to have survived short periods after being burned. Hyperthermia causing instantaneous death manifests as rapid burning of tissue, but when death occurs a day or later there will be signs of tissue loss, inflammation, proteinic exudate and/or cellular death leading to multisystemic organ failure. The beginnings of an inflammatory response to injury can be microscopically observed within one to a few hours after the insult and would have been expected in any of the four birds found alive. Signs of heat stroke or inhalation of hot air should have been observable a day or more after the incident. Rather, in these cases extensive feather burns on the body largely appeared to be limited to the tips of the feathers with the overlapping portions insulating the body as designed. This, in conjunction with what is likely only a few seconds or less spent in the flux, suggests that skin or internal organ damage from exposure to high temperatures in solar flux may not be a major cause of the observed mortality.

Ocular damage following light exposure was also considered but could not be demonstrated in the submitted birds. In the four birds that initially survived, there were no signs of retinal damage, inflammation or other ocular trauma. Given the small sample size, this does not preclude sight impairment as a possible sequela but clinical monitoring of survivors would be needed to draw more definitive conclusions.

Powerline electrocution was the cause of death for one bird (a juvenile Common Raven) at the Ivanpah facility. Electrocution at these solar facilities is a potential hazard but, thus far, appears to be an uncommon cause of death.

Smashed birds (13/233) were found at all three locations. Detailed carcass collection information was provided for 6, all were found on roads. Though poor carcass quality in all cases precluded definitive cause death determination, circumstances and carcass condition suggest vehicle trauma as the cause of deaths. The relatively low numbers of vehicle collisions may be attributed to slow on-site vehicle speeds and light traffic. Vehicle collisions, therefore, do not appear to be a major source of mortality and would be expected to decrease as construction ends.

There was a large number of birds (85/233) for which a cause of death could not be determined due to poor carcass condition. The arid, hot environment at these facilities leads to rapid carcass degradation which greatly hinders pathology examination. Results were especially poor for birds from the Genesis facility, where the cause of death(s) for 23/31 (74%) could not be determined. These results underscore the need for carcasses to be collected soon after death. More frequent, concerted carcass sweeps are advised.

Insect mortality and solar facilities as “mega-traps”

An ecological trap is a situation that results in an animal selecting a habitat that reduces its fitness relative to other available habitats (Robertson, B.A. and R.L. Hutto. 2006. A framework for understanding ecological traps and an evaluation of existing evidence. *Ecology* 87: 1075-1085; Robertson, B.A., J.S. Rehage, and Sih, A. 2013. Ecological novelty and the emergence of evolutionary traps. *Trends in Ecology and Evolution* 28: 552-560).

A wide variety of circumstances may create ecological traps, ranging from subtle (songbirds attracted to food resources in city parks, where they are vulnerable to unnaturally high populations of predators) to direct (birds are attracted to oil-filled ponds, believing it to be water, and become trapped). It appears that solar flux facilities may act as “mega-traps,” which we define as artificial features that attract and kill species of multiple trophic layers. The strong light emitted by these facilities attract insects, which in turn attract insect-eating birds, which are incapacitated by solar flux injury, thus attracting predators and creating an entire food chain vulnerable to injury and death.

OLE staff observed large numbers of insect carcasses throughout the Ivanpah site during their visit. In some places there were hundreds upon hundreds of butterflies (including monarchs, *Danaus plexippus*) and dragonfly carcasses. Some showed singeing, and many appeared to have just fallen from the sky. Careful observation with binoculars showed the insects were active in the bright area around the boiler at the top of the tower. It was deduced that the solar flux creates such a bright light that it is brighter than the surrounding daylight. Insects were attracted to the light and could be seen actively flying the height of the tower. Birds were also observed feeding on the insects. At times birds flew into the solar flux and ignited. Bird carcasses recovered from the site showed the typical singed feathers. The large populations of insects

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may also attract indigenous bat species, which were seen roosting in structures at the base of the power tower.

Monarch butterflies in North America – both east and west of the Rocky Mountains – have been documented to be in decline (see the North American Monarch Conservation Plan, available at: http://www.mlmp.org/Resources/pdf/5431_Monarch_en.pdf). Proposed causes include general habitat loss and specific loss of milkweed, upon which the butterflies feed and reproduce. Considering the numerous monarch butterfly carcasses seen at the Ivanpah facility, it appears that solar power towers could have a significant impact on monarch populations in the desert southwest. Analysis of the insect mortality at Ivanpah, and systematic observations of bird/insect interactions around the power tower, is clearly needed.

Bird species affected by solar flux include both insectivores (e.g. swallows, swifts, flycatchers, and warblers) and raptors that prey on insect-feeding birds. Based on observations of the tower in flux and the finding of large numbers of butterflies, dragonflies and other insects at the base of the tower and in adjacent buildings it is suspected that the bright light generated by solar flux attracts insects, which in turn attracts insectivores and predators of insectivores. Waterbirds and other birds that feed on vegetation were not found to have solar flux burns. Birds were observed perching and feeding on railings at the top of the tower, apparently in response to the insect aggregations there.

Further, dead bats found at the Ivanpah site could be attracted to the large numbers of insects in the area. Nineteen bats from the condenser area of the power tower facility have been submitted to NFWFL for further evaluation. These bats belong to the Vespertilionidae and Molossidae families, which contain species considered by the Bureau of Land Management to be sensitive species in California. Preliminary evaluation revealed no apparent singeing of the hair, and analysis is ongoing.

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Solar flux and heat associated with solar power tower facilities

Despite repeated requests, we have been unsuccessful in obtaining technical data relating to the temperature associated with solar flux at the Ivanpah facility. The following summarizes the information we have gathered from other sources.

The Ivanpah solar energy generating facility consists of mirrors that reflect sunlight to a tower. In the tower sits a boiler that generates steam which then powers a turbine.

At the top of a 459 foot tall tower sits a boiler (solar receiver) that is heated by the sun rays reflected by 300,000 mirrors, called solar heliostats. When the concentrated sunlight strikes the boiler tubes, it heats the water to create superheated steam. The high temperature steam is then piped from the boiler to a turbine where electricity is generated (<http://ivanpahsolar.com/about> visited on 01/20/2014).



Figure 7 Ivanpah solar power facilities
<http://ivanpahsolar.com/about>

If all the solar heliostats are focused on the solar tower the beams multiply the strength of sunlight by 5000 times, and this generates temperatures at the solar tower in excess of 3600° Fahrenheit (> 1982° Celsius). Since steel melts at 2750° Fahrenheit (1510° Celsius), only a percentage of heliostats are focused on the solar receiver so that the optimal temperature at the tower is approximately 900° Fahrenheit (~482° Celsius) (“How do they do it” Wag TV for Discovery Channel, Season 3, Episode 15, “Design Airplane Parachutes, Create Solar Power. Make Sunglasses” Aired August 25, 2009).



Figure 8: Seville solar power facility (<http://inhabitat.com/sevilles-solar-power-tower>)

A solar steam plant in Coalinga that also uses heliostat technology for extracting oil is on record stating that the steam generator is set to about 500° Celsius. (<http://abclocal.go.com/kDSn/story?section=news%2Fbusiness&id=8377469> Viewed Jan 21, 2013)

Temperatures measured by the authors at the edge of the solar complex on the surface of a heliostat were approximately 200° Fahrenheit (~93° Celsius). Therefore, there is a gradient of temperature from the edge of the solar field to the tower that ranges from 200° to 900° Fahrenheit.

There is a phenomenon that occurs when the heliostats are focused on the tower and electricity is being generated. The phenomenon can be described as either a circle of clouds around the tower or, at times, a cloud formed on the side that is receiving the solar reflection. It appears as though the tower is creating clouds. Currently we propose two hypotheses of why this “cloud” is formed. The first hypothesis is simply the presumption that the high heat associated with towers is condensing the air, and forming the



Figure 9: Tower 1 (bright white) is shown under power. Tower 2 (black) is not operating.

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clouds. The second hypothesis is that this phenomenon does not represent clouds at all rather it is a place in space where the heliostats that are not being used to generate heat are focused. Under this scenario, it is a place where the mirrors focus the excess energy not being used to generate electricity.

Ivanpah employees and OLE staff noticed that close to the periphery of the tower and within the reflected solar field area, streams of smoke rise when an object crosses the solar flux fields aimed at the tower. Ivanpah employees used the term “streamers” to characterize this occurrence.

When OLE staff visited the Ivanpah Solar plant, we observed many streamer events. It is claimed that these events represent the combustion of loose debris, or insects. Although some of the events are likely that, there were instances in which the amount of smoke produced by the ignition could only be explained by a larger flammable biomass such as a bird. Indeed OLE staff observed birds entering the solar flux and igniting, consequently becoming a streamer.

OLE staff observed an average of one streamer event every two minutes. It appeared that the streamer events occurred more frequently within the “cloud” area adjacent to the tower. Therefore we hypothesize that the “cloud” has a very high temperature that is igniting all material that traverses its field. One possible explanation of this this phenomenon is that the “cloud” is a convergent location where heliostats are “parked” when not in use. Conversely it undermines the condensation hypothesis, given that birds flying through condensation clouds will not spontaneously ignite.

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Temperatures required to burn feathers

Many of the carcasses recovered from the Ivanpah Solar plant after the plant became operational showed singeing of feathers as shown in Figure 10.



Figure 10: Singed feathers from a Northern Rough-winged Swallow

In order to investigate at what temperature feathers burn/singe, we exposed feathers to different air temperatures. Each feather was exposed to a stream of helium and air for 30 seconds. The results indicate that at 400° Celsius (752° Fahrenheit) after 30 seconds the feather begins to degrade. But at 450° and



Figure 11: Results of exposing feathers to different temperatures (in degrees Celsius)

500° Celsius (842° and 932° Fahrenheit respectively) the feathers singed as soon as they made contact with the superheated air (Figure 11). Therefore, when singed birds are found, it can be inferred that the temperatures in the solar flux at the time a bird flew through it was at least 400° Celsius (752° Fahrenheit). This inference is consistent with the desired operating temperature of a power tower solar boiler (482° Celsius).

The fact that a bird will catch on fire as it flies through the solar flux has been confirmed by a Chevron engineer who works at the Coalinga Chevron Steam plant, a joint venture of Chevron and BrightSource Solar. (<http://abclocal.go.com/kDSn/story?section=news%2Fbusiness&id=8377469> Viewed Jan. 21, 2013)

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Conclusions and Recommendations

In summary, three main causes of avian mortality were identified at these facilities: impact trauma, predation and solar flux. Birds at all three types of solar plants were susceptible to impact trauma and predators. Solar flux injury was unique to the power tower facility. Solar facilities, in general, do not appear to attract particular species, rather an ecological variety of birds are vulnerable. That said, certain mortality and species trends were evident, such as waterbirds at Desert Sunlight, where open water sources were present.

Specific hazards were identified, including vertically-oriented mirrors or other smooth reflective panels; water-like reflective or polarizing panels; actively fluxing towers; open bodies of water; aggregations of insects that attracted insectivorous birds; and resident predators. Making towers, ponds and panels less attractive or accessible to birds may mitigate deaths. Specific actions include placing perch-guards on power tower railings near the flux field, properly netting or otherwise covering ponds, tilting heliostat mirrors during washing and suspending power tower operation at peak migration times.

Visual cues should be retrofitted to existing panels and incorporated into new panel design. These cues may include UV-reflective or solid, contrasting bands spaced no further than 28 cm from each other. This arrangement has been shown to significantly reduce the number of passerines hitting expanses of windows on commercial buildings. Spacing of 10 cm eliminates window strikes altogether. Further exploration of panel design and orientation should be undertaken with researchers experienced in the field (Daneil Klem Jr. of Muhlenberg College) to determine causes for the high rate of impact trauma, and designs optimized to reduce these mortalities.

Challenges to data collection included rapid degradation of carcass quality hindering cause of death and species determination; large facilities which are difficult to efficiently search for carcasses; vegetation and panels obscuring ground visibility; carcass loss due to scavenging; and inconsistent documentation of carcass history. Searcher efficiency has been shown to have varying influences on carcass recovery with anywhere from 30% to 90% detection of small birds achieved in studies done at wind plants (Erickson et al., 2005). Scavengers may also remove substantial numbers of carcasses. In studies done on agricultural fields, up to 90% of small bird carcasses were lost within 24 hours (Balcomb, 1986; Wobeser and Wobeser, 1992). OLE staff observed apparently resident ravens at the Ivanpah power tower. Ravens are efficient scavengers, and could remove large numbers of small bird carcasses from the tower vicinity. (Erickson, W. P., G. D. Johnson, and D. P. Young, Jr., 2005, A summary and comparison of bird mortality from anthropogenic causes with an emphasis on collisions: U S Forest Service General Technical Report PSW, v. 191, p. 1029-1042; Balcomb, R., 1986. Songbird carcasses disappear rapidly from agricultural fields: *Auk*, v. 103, p. 817-820; Wobeser, G. and A. G. Wobeser, 1992, Carcass disappearance and estimation of mortality in a simulated die-off of small birds: *Journal of Wildlife Diseases*, v. 28, p. 548-554.)

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Given these variables it is difficult to know the true scope of avian mortality at these facilities. The numbers of dead birds are likely underrepresented, perhaps vastly so. Observational and statistical studies to account for carcass loss may help us to gain a better sense of how many birds are being killed. Complete histories would help us to identify factors (such as vertical placement of mirrors) leading to mortalities. Continued monitoring is also advised as these facilities transition from construction to full operation. Of especial concern is the Ivanpah facility which was not fully-functioning at the time of the latest carcass submissions. In fact, all but 7 of the carcasses with solar flux injury and reported dates of collection were found at or prior to the USFWS site visit (October 21-24, 2013) and, therefore, represent flux mortality from a facility operating at only 33% capacity. Investigation into bat and insect mortalities at the power tower site should also be pursued.

ACKNOWLEDGMENTS

We wish to acknowledge the invaluable assistance and insights of S.A. Michael Clark and S.A. Ed Nieves.

Appendix 1. List of all 71 species recovered from the three solar energy sites. In this table, remains of closely related taxa that could not be definitively identified (e.g. Cinnamon/Blue-winged Teal and Black-throated/Sage Sparrow) are assigned to the biogeographically more likely taxon. In all such cases, the possible taxa are ecologically similar. All of these species are MBTA-listed.

| SPECIES | | Zone | Residency | Sites | MNI |
|----------------------------|---------------------------------------|-------|-----------|----------|-----|
| Cinnamon Teal | <i>Anas cyanoptera</i> | water | migrant | DS,IV | 5 |
| Pied-billed Grebe | <i>Podilymbus podiceps</i> | water | migrant | DS | 1 |
| Western Grebe | <i>Aechmophorus occidentalis</i> | water | migrant | DS | 9 |
| Eared Grebe | <i>Podiceps nigricollis</i> | water | migrant | DS,GN | 5 |
| Brown Pelican | <i>Pelecanus occidentalis</i> | water | migrant | DS | 2 |
| Double-crested Cormorant | <i>Phalacrocorax auritus</i> | water | migrant | DS | 2 |
| Great Blue Heron | <i>Ardea herodias</i> | water | migrant | GN | 1 |
| Black-crowned Night-Heron | <i>Nycticorax nycticorax</i> | water | migrant | DS | 1 |
| Cooper's Hawk | <i>Accipiter cooperii</i> | air | migrant | IV | 1 |
| Red-shouldered Hawk | <i>Buteo lineatus</i> | terr | migrant | IV | 1 |
| American Kestrel | <i>Falco sparverius</i> | air | resident | GN,IV | 2 |
| Peregrine Falcon | <i>Falco peregrinus</i> | air | resident | IV | 1 |
| American Coot | <i>Fulica americana</i> | water | migrant | DS, IV | 12 |
| Yuma Clapper Rail | <i>Rallus longirostris yumanensis</i> | water | resident | DS | 1 |
| Sora | <i>Porzana carolina</i> | water | migrant | DS,IV | 2 |
| American Avocet | <i>Recurvirostra americana</i> | water | migrant | DS | 1 |
| Spotted Sandpiper | <i>Actitis maculatus</i> | water | migrant | IV | 2 |
| Ring-billed Gull | <i>Larus delawarensis</i> | water | migrant | GN | 2 |
| California Gull | <i>Larus californianus</i> | water | resident | GN | 1 |
| Greater Roadrunner | <i>Geococcyx californianus</i> | terr | resident | IV | 5 |
| Yellow-billed Cuckoo | <i>Coccyzus americanus</i> | terr | migrant | IV | 1 |
| Mourning Dove | <i>Zenaida macroura</i> | terr | resident | DS, IV | 14 |
| White-winged Dove | <i>Zenaida asiatica</i> | terr | resident | DS,GN | 2 |
| Barn Owl | <i>Tyto alba</i> | terr | resident | IV | 1 |
| Lesser nighthawk | <i>Chordeiles acutipennis</i> | air | resident | DS,GN,IV | 7 |
| Common Poorwill | <i>Phalaenoptilus nuttallii</i> | air | resident | DS,IV | 2 |
| White-throated Swift | <i>Aeronautes saxatalis</i> | air | resident | IV | 1 |
| Costa's Hummingbird | <i>Calypte costae</i> | air | resident | DS | 1 |
| Allen's/Rufous Hummingbird | <i>Selasphorus sp.</i> | air | migrant | IV | 1 |
| Northern Flicker | <i>Colaptes auratus</i> | terr | resident | IV | 1 |
| Ash-throated Flycatcher | <i>Myiarchus cinerascens</i> | air | resident | DS,IV | 2 |
| Say's Phoebe | <i>Sayornis saya</i> | air | resident | GN | 2 |
| Black Phoebe | <i>Sayornis nigricollis</i> | air | resident | DS | 1 |
| Loggerhead shrike | <i>Lanius ludovicianus</i> | terr | resident | DS,IV | 5 |
| Warbling Vireo | <i>Vireo gilvus</i> | terr | migrant | IV | 1 |
| Common Raven | <i>Corvus corax</i> | terr | resident | DS,IV | 3 |
| Horned Lark | <i>Eremophila alpestris</i> | terr | migrant | DS | 1 |
| Tree Swallow | <i>Tachycineta bicolor</i> | air | migrant | DS,GN,IV | 5 |

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| SPECIES | | Zone | Residency | Sites | MNI |
|-----------------------------|--------------------------------------|------|-----------|----------|-----|
| Cliff Swallow | <i>Petrochelidon pyrrhonota</i> | air | resident | GN | 5 |
| No. Rough-winged Swallow | <i>Stelgidopteryx serripennis</i> | air | migrant | IV | 2 |
| Verdin | <i>Auriparus flaviceps</i> | terr | resident | IV | 3 |
| Blue-gray Gnatcatcher | <i>Polioptila caerulea</i> | terr | resident | IV | 1 |
| Northern Mockingbird | <i>Mimus polyglottos</i> | terr | resident | IV | 1 |
| American Pipit | <i>Anthus rubescens</i> | terr | migrant | IV | 4 |
| Orange-crowned Warbler | <i>Oreothlypis celata</i> | terr | migrant | IV | 1 |
| Lucy's Warbler | <i>Oreothlypis luciae</i> | terr | resident | IV | 1 |
| Yellow-rumped Warbler | <i>Setophaga coronata</i> | air | migrant | IV | 14 |
| Black-throated Gray Warbler | <i>Setophaga nigrescens</i> | terr | migrant | IV | 1 |
| Hermit Warbler | <i>Setophaga occidentalis</i> | terr | migrant | GN | 1 |
| Townsend's warbler | <i>Setophaga townsendi</i> | terr | migrant | DS,IV | 4 |
| Yellow Warbler | <i>Setophaga petechia</i> | terr | migrant | IV | 1 |
| Black-and-white Warbler | <i>Mniotilta varia</i> | terr | migrant | IV | 1 |
| MacGillivray's Warbler | <i>Oporornis tolmei</i> | terr | migrant | IV | 1 |
| Wilson's Warbler | <i>Cardellina pusilla</i> | terr | migrant | DS,IV | 4 |
| Common Yellowthroat | <i>Geothlypis trichas</i> | terr | migrant | DS | 1 |
| Western Tanager | <i>Piranga ludoviciana</i> | terr | migrant | DS,IV | 4 |
| Black-headed Grosbeak | <i>Pheucticus melanocephalus</i> | terr | migrant | DS,GN | 2 |
| Lazuli Bunting | <i>Passerina caerulea</i> | terr | migrant | IV | 1 |
| Blue Grosbeak | <i>Passerina caerulea</i> | terr | resident | IV | 1 |
| Green-tailed Towhee | <i>Pipilo chlorurus</i> | terr | migrant | IV | 1 |
| Brewer's Sparrow | <i>Spizella breweri</i> | terr | resident | IV | 3 |
| Chipping Sparrow | <i>Spizella passerina</i> | terr | resident | GN,IV | 4 |
| Black-throated Sparrow | <i>Amphispiza bilineata</i> | terr | resident | DS,IV | 4 |
| Savannah Sparrow | <i>Passerculus sandwichensis</i> | terr | migrant | DS,IV | 3 |
| White-crowned Sparrow | <i>Zonotrichia leucophrys</i> | terr | migrant | IV | 6 |
| Pine Siskin | <i>Spinus pinus</i> | terr | migrant | IV | 1 |
| House Finch | <i>Carpodacus mexicanus</i> | terr | resident | IV | 13 |
| Great-tailed Grackle | <i>Quiscalus mexicanus</i> | terr | resident | DS,IV | 5 |
| Brown-headed Cowbird | <i>Molothrus ater</i> | terr | resident | DS,GN,IV | 8 |
| Yellow-headed Blackbird | <i>Xanthocephalus xanthocephalus</i> | terr | migrant | DS | 1 |
| Bullock's Oriole | <i>Icterus bullockii</i> | terr | resident | GN | 2 |

Species recovered from one site: 47
two sites: 18
three sites: 5

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Appendix 2. Species with solar flux burns

| Common Name | Scientific name | |
|-------------------------------|-----------------------------------|----|
| Yellow-rumped warbler | <i>Setophaga coronata</i> | 12 |
| House finch | <i>Carpodacus mexicanus</i> | 10 |
| Chipping sparrow | <i>Spizella passerina</i> | 2 |
| Unidentified warbler | <i>Parulidae</i> | 2 |
| Verdin | <i>Auriparus flaviceps</i> | 2 |
| Great-tailed grackle | <i>Quiscalus mexicanus</i> | 2 |
| Lucy's warbler | <i>Oreothlypis luciae</i> | 1 |
| Wilson's warbler | <i>Cardellina pusilla</i> | 1 |
| MacGillivray's warbler | <i>Oporornis tolmei</i> | 1 |
| Black-throated gray warbler | <i>Setophaga nigrescens</i> | 1 |
| Townsend's warbler | <i>Setophaga townsendi</i> | 1 |
| Orange-crowned warbler | <i>Oreothlypis celata</i> | 1 |
| Blue-gray gnatcatcher | <i>Polioptila caerulea</i> | 1 |
| Unidentified swallow | <i>Hirundinidae</i> | 1 |
| Northern rough-winged swallow | <i>Stelgidopteryx serripennis</i> | 1 |
| Warbling vireo | <i>Vireo gilvus</i> | 1 |
| Unidentified hummingbird | <i>Selasphorus sp.</i> | 1 |
| Unidentified passerine | Passeriformes | 1 |
| Unidentified finch | <i>Carpodacus sp.</i> | 1 |
| Lazuli bunting | <i>Passerina caerulea</i> | 1 |
| Unidentified sparrow | <i>Spizella species</i> | 1 |
| Unidentified blackbird | <i>Icteridae</i> | 1 |
| Peregrine falcon | <i>Falco peregrinus</i> | 1 |

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Letter 12

COMMENTER: Laura E. Horton, Adams Broadwell Joseph and Cardozo

DATE: August 22, 2014

Response 12.1

The commenter notes that they are commenting on behalf of the Monterey County Residents for Responsible Development. The comment is noted.

Response 12.2

The commenter provides a summary of the proposed project. The comment is noted.

Response 12.3

The commenter claims that the DEIR fails to comply with basic requirements of CEQA, but does not provide any evidence to support these assertions. Therefore, no specific response is feasible. Refer to responses 12.6 through 12.C.8 for responses to specific comments on the DEIR.

Response 12.4

The commenter refers to three attachments to the comment letter, and requests that the County respond to these comments separately and individually. Refer to responses 12.A.1 through 12.A.70 for responses to Attachment A; responses 12.B. through 12.B.6 for responses to Attachment B; and responses 12.C.1 through 12.C.8 for responses to Attachment C.

Response 12.5

The commenter describes the individuals and organizations that comprise the organization they represent (Monterey County Residents for Responsible Development) and describes the purpose of the organization. The comment does not raise environmental issues, or question the sufficiency of the environmental analysis in the DEIR; therefore, no further response is required.

Response 12.6

The commenter claims that the DEIR fails to include a complete and accurate project description. The State CEQA guidelines state that the project description shall contain a general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals, if any, and supporting public service facilities (CEQA Guidelines Section 15124(c)). CEQA also states that the project description should not supply extensive detail beyond that needed for evaluation and review of the environmental impact. It is atypical for detailed final project design features to be well-established for energy infrastructure projects prior to certification of an EIR. In order to adequately address impacts of all potential design specifications, the impact analyses presented in the DEIR assumed a



reasonable worst-case scenario of development for each issue area. In this way, the EIR conservatively estimated a reasonable worst-case scenario of impacts

Response 12.7

The commenter states that it is unclear who is constructing the proposed switching station and who would take ownership and operate the station after construction. As noted in Section 2.5.1 (Energy-Related Infrastructure) in Section 2.0, *Project Description*, “the project proponent would also construct a new 230kV interconnection switching station that would provide an interconnection to the existing Morro-Bay-Gates 230 kV transmission line and would be owned and operated by PG&E.”

The commenter additionally states that it is unclear whether the project would require the construction of a new well. The *Water Infrastructure* discussion in Section 2.5.2 (Other Structures and Improvements) in Section 2.0, *Project Description*, describes three water sources for the proposed project: two existing wells and one potential new well. At this stage in the project design, the need for a third well is unknown. The anticipated location of the well is shown in Figure 2-4h. However, the project description appropriately recognizes that the final location of the new well (if needed) would depend on final design and operational efficiencies. As described in Impact HYD-3 in Section 4.9, *Hydrology and Water Quality*, the proposed project would have sufficient water supplies available from existing on-site groundwater wells and no new or expanded entitlements would be needed. If a third well is drilled, it would be constructed to serve panel washing or other operational or construction-related activities and would not increase water demand or otherwise impact the groundwater table.

Response 12.8

The commenter points out that the DEIR project description lists specific locations for park-and-ride facilities, while elsewhere it is stated that the exact location and size of the facilities is unknown. In response to this comment, the first paragraph under Section 2.6.2 (Access and Traffic) in Section 2.0, *Project Description*, has been revised as follows:

...This shuttle service would transport approximately 95% of the anticipated construction work force (not including visitors, management, monitors/inspectors, etc.) on a daily basis from designated employee shuttle park-and-ride locations. Use of the shuttle program would be mandated as a condition of employment. Shuttle park-and-ride lots ~~would~~ are anticipated to be located west of the site on SR 46 in Paso Robles, (Cuesta College North County Campus), northwest of the site on Highway 101 in King City (Wild Horse Café), and southeast of the project site near the intersection of SR 46 and SR 33 (Blackwell’s Corner). The ultimate locations of the proposed park-n-ride facilities would be determined based on their proximity to SR 46 and SR 41, their ability to achieve the goal of 95% ridership, and their prior use for parking, including prior use for construction staging for other solar developments located in San Luis Obispo County. In addition, the locations of park-and-ride facilities would consist of previously disturbed and/or developed areas (paved or unpaved) that have historically been used for parking purposes. No new or expanded parking facilities would be constructed for the proposed project, although ~~These sites may require~~ temporary fencing and minor

surface improvements may be constructed. Each shuttle bus would have a capacity of approximately 46 passengers.

In addition, the discussion under Impact T-7 in Section 4.13, *Transportation/Traffic*, has been revised as follows:

Impact T-7 An employee shuttle service would provide transport to and from the site during the construction phase. The exact location, ~~and size, and design~~ of the proposed park and ride facilities are not known at this time; therefore, there is the potential for secondary impacts to the environment to occur. Impacts would be Class II, *significant but mitigable*. [Threshold: multiple]

As described previously, trip generation for the construction phase assumes that an employee shuttle service would transport 95% of the total construction workforce to and from the project site. Designated employee shuttle park and ride locations would provide parking for the construction workforce. As noted in Section 2.0, Project Description, shuttle park-and-ride lots would likely be located west of the site on SR 46 in Paso Robles (Cuesta College North County Campus), northwest of the site on Highway 101 in King City (Wild Horse Café), and southeast of the project site near the intersection of SR 46 and SR 33 (Blackwell's Corner). These sites may require temporary fencing and minor surface improvements. The ultimate locations of the proposed park-n-ride facilities would be determined based on their proximity to SR 46 and SR 41, their ability to achieve the goal of 95% ridership, and their prior use for parking, including prior use for construction staging for other solar developments located in San Luis Obispo County. However, further details regarding the park-and-ride facilities are not available at this time. While the exact locations of the park and ride facilities have not been identified, one shuttle park and ride lot would be generally located west of the site on SR 46 in Paso Robles, the other park and ride lot will be located northeast of the project site approximately at the intersection of SR 41 and SR 33. Given that the size, design, and exact location of the parking facilities is not known at this time, there is the potential for adverse impacts to occur in several issue areas including but not limited to aesthetics, biological resources, water quality and hydrology, noise and transportation and traffic. Impacts would therefore be potentially significant.

The above revisions to the impact statement have also been made to Table 4.13-1 (Impact and Mitigation Summary: Transportation/Traffic) and Table ES-1 in the *Executive Summary*.

Response 12.9

The commenter states that the DEIR lacks a consistent construction period. As stated in Section 2.6.1 (Schedule and Activities) in Section 2.0, *Project Description*, "Construction of the proposed project would take approximately 12 to 24 months, and is proposed to begin in 2015 and conclude in 2016." The analysis in Section 4.3, *Air Quality*, assumed that construction would occur over 12 to 24 months. Table 4.3-5 depicts construction years 2014 and 2015. This table is based on an air quality and greenhouse gas modeling provided by RBF Consultants (refer to Appendix C to the DEIR), and was prepared at a time when it was anticipated that construction would begin in 2014. While the timing of construction was subsequently revised, updating the



emissions calculations to utilize a later construction year would only serve to reduce emissions, due to the use of newer and more efficient construction equipment by the computer model. Thus, maintaining a construction years of 2014 and 2015 (rather than 2015 and 2016) provides a reasonable worst case analysis of construction emissions.

In response to this comment, a statement at the bottom of page 4.4-184 in Section 4.4, *Biological Resources*, has been revised as follows:

Because construction is anticipated to occur for up to ~~24~~ 18 months, there is a high likelihood that pronghorn use along the Access Road and adjacent areas would be adversely affected.

It should also be noted that the traffic report evaluated a 12 month and an 18 month construction schedule. While construction of the proposed project is anticipated to occur over a 12 to 24 month period, the traffic impact analysis included an evaluation of potential traffic associated with a 12 month construction schedule as a conservative worst case traffic estimate since trip generation rates would be higher to accommodate construction of the project over a shorter period.

The commenter additionally states that the DEIR is silent on how many PV panels would be installed and on the type of panels that would be used. While the project description does not define a photovoltaic technology, it describes potential technologies that may be used [see Section 2.5.1 (Energy-Related Infrastructure) of the DEIR]. Because a specific technology was not chosen, the exact panel components, numbers of support structures, and number of panels is known only within a range of certainty. However, regardless of the precise number and configuration of panels, the total maximum potential area to be disturbed by the panels (“solar development area,” or SDA) and associated energy-related infrastructure was used in the impact analyses presented in Section 4.0 of the DEIR.

Finally, the commenter notes that the DEIR fails to indicate the type, number, and locations of stream crossings. As noted in Section 2.0, *Project Description*, existing stream crossings would be constructed, modified or upgraded, as depicted on Figure 2-4a. In addition, the specific type of stream crossings would be determined at the time of project design, but may include low water crossings, low water crossings with culverts, and high capacity culvert crossings. As stated in Section 2.0, *Project Description*, because the precise configuration of panel arrays and other facilities within the 2,120-acre solar development area (SDA) may vary, environmental impacts – including those from stream crossings – were assessed for the entire SDA as a reasonable worst case scenario analysis.

Refer also to response 12.6.

Response 12.10

The commenter claims that the DEIR fails to provide a complete description of the decommissioning phase. Decommissioning is described in Section 2.8 (Decommissioning and Site Restoration/Revegetation). As noted therein, given the project’s operating life cycle and distant timeframe for decommissioning activities, it is too speculative to provide details



describing specific decommissioning activities and potential impacts that could occur far into the future. Representative procedures for decommissioning are therefore provided, based on the applicant-provided Conceptual Restoration Plan for Project Decommissioning prepared for planning purposes, and current decommissioning practices. The analysis assumes a worst-case scenario that decommissioning impacts would be similar to environmental impacts associated with the construction phase. Nonetheless, a decommissioning would be subject to CEQA review prior to implementation, potential impacts would be assessed at that time consistent with applicable policies, thresholds and standards in place at the time.

The commenter additionally claims that it is inappropriate for the DEIR to provide generalized, programmatic-level evaluation of decommissioning impacts in a project-level CEQA review. The analysis of decommissioning can only be as detailed as the information available. As stated in CEQA Guidelines Section 15146: “the degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR.” As indicated above, it is too speculative to provide details describing specific decommissioning activities that could occur 30 to 40 years in the future. Correspondingly, assessing project-level impacts associated with such activities is not feasible, and would result in undue speculation.

Response 12.11

The commenter claims that the DEIR fails to adequately address the environmental baseline. The commenter then generally describes the requirements of CEQA pertaining to environmental setting. The comment does not specifically address the DEIR, other than to claim that the setting contained therein is incomplete. Because the commenter provides no evidence to support this claim, a specific response to this comment is not feasible. Refer to responses 12.12 through 12.30 for responses to specific comments related to this claim.

Response 12.12

The commenter provides an introduction to their biological comments and contends that the DEIR fails to provide an adequate description of the presence of special-status biological resources on the Project site against which to assess the Project’s significant impacts.

The DEIR identifies those special-status biological resources likely to be present on the project site, with information derived from several scientific sources, including field surveys. Not all surveys were completed prior to issuance of the DEIR, and survey results from ongoing surveys are presented in response to the public comments on the DEIR. None of the ongoing surveys have identified any potential impacts that were not identified in the DEIR, and no additional mitigation would be required to address potential impacts to biological resources. The DEIR environmental setting is based on expert review of data contained within a number of biological resource databases, available literature on species known to occur in the project vicinity, a wide variety of surveys including reconnaissance-level surveys, protocol-level surveys and modified protocol surveys. The purpose of the database and literature review is to provide a reasoned analysis of the baseline environmental conditions on the project site; therefore, full and comprehensive protocol-level surveys are not required to evaluate potential impacts (refer to master response 1 for a discussion of survey adequacy). Surveys are ongoing to continue to evaluate resources and inform mitigation activity (including required pre-construction surveys) and therefore, not all surveys



were completed prior to issuance of the DEIR. Additional survey results are presented in this response to the public comments on the DEIR. The additional survey reports presented at this time include the following:

- 2014 *Special Status Plant Survey Report* (HTH 2014h; FEIR Appendix E.15)
- 2012 *CRLF Survey Memorandum* (HTH 2012c; FEIR Appendix E.16)
- 2013 *Raptor Nest Survey Report* (HTH 2013d; FEIR Appendix E.17)
- 2014 *Baseline Avian Activity Survey Report* (HTH 2014i; FEIR Appendix E.18)
- 2012 *CTS Site Assessment* (HTH 2012e; FEIR Appendix E.19)
- 2013 *Wet Season Branchiopod Survey Report* (HTH 2013e; FEIR Appendix E.20)
- 2012 *CRLF Site Assessment* (HTH 2012d; FEIR Appendix E.21)

The above reports are included in Appendix E to the Final EIR (FEIR; Appendices E.15 through E.21). Because the DEIR was conservative in evaluating potential impacts to biological resources, none of the ongoing surveys have identified any potential impacts that were not identified in the DEIR, and no additional mitigation is recommended, or would be required as a result of data included in any of these reports. The survey effort completed for this project at the time of preparation of the DEIR was sufficient for evaluating potential impacts to biological resources under CEQA as described in master response 1. To include the new technical reports and revise minor clerical errors in the cited references, Section 9.0, *References and Preparers*, of the DEIR has been revised as follows:

H.T. Harvey & Associates, California Flats Solar Project, ~~Monterey and San Luis Obispo Counties, California~~, Addendum to Biotic Resources Report and Biological Resources Impact Analysis, November 2013 Site Plan Update Preliminary Delineation of Wetlands and Other Waters, 2014e.

H.T. Harvey & Associates, California Flats Solar Project Spotlight Surveys for San Joaquin Kit Fox and American Badger, April 2014f.

H. T. Harvey & Associates, ~~2014e~~: California Valley Solar Ranch Project Avian and Bat Protection Plan Annual Postconstruction Fatality Report 16 August 2012 – 15 August 2013. Prepared for: HPR II, LLC California Valley Solar Ranch, San Luis Obispo, California. 2014g.

H. T. Harvey & Associates, 2014 Special-status Plant Survey Report for the California Flats Solar Project Monterey County, California. 2014h.

H. T. Harvey & Associates, Baseline Avian Activity Surveys for the Proposed California Flats Solar Project in Monterey County, California: March 2013–March 2014. 2014i.

H.T. Harvey & Associates, California Flats Solar Project, Aquatic Larval Surveys, California Tiger Salamander, California Red-legged Frog, 2013a.

H.T. Harvey & Associates, California Flats Solar Project, Identification of Kangaroo Rats through Morphometric, Ecological, and Genetic Analyses, October 2013b.



H.T. Harvey & Associates, California Flats Solar Project, Wet-season Branchiopod Survey Report, 2013c.

H.T. Harvey & Associates, Baseline Raptor Nest Surveys for the Proposed California Flats Solar Project in Monterey County, California: 2013. 2013d.

H.T. Harvey & Associates, California Flats Solar Project 2012 Wet-season Branchiopod Survey Report. 2013e.

H.T. Harvey & Associates, California Flats Solar Project, ~~Addendum to~~ Monterey and San Luis Obispo Counties, California Preliminary Delineation of Wetlands and Other Waters, 2012a.

H.T. Harvey & Associates, California Flats Solar Project, Addendum to: Monterey and San Luis Obispo Counties, California Preliminary Delineation of Wetlands and Other Waters ~~Addendum to Biotic Resources Report and Biological Resources Impact Analysis, November 2013 Site Plan Update~~, 2012b.

H.T. Harvey & Associates, California Flats Solar Project: Results of California Red-legged Frog Survey. 2012c.

H.T. Harvey & Associates, California Red-Legged Frog Site Assessment. 2012d.

H.T. Harvey & Associates, California Tiger Salamander Site Assessment. 2012e.

Response 12.13

The commenter states that Mr. Cashen observed many errors in the rare plant surveys referenced in the DEIR and argues that due to a poor rainfall year, rare plant survey results should be considered inconclusive and the BSA should be resurveyed in order for the DEIR to properly assess all potentially significant impacts. Please refer to master response 2 for a detailed response to comments regarding the adequacy of rare plant surveys.

Response 12.14

The commenter states that the DEIR provides inaccurate information regarding the presence of Mason's neststraw, stating that the plant has no potential of occurring within the BSA. The commenter notes that the Biotic Report Addendum (HTH 2014e; DEIR Appendix E.13) indicated the species could occur within the project's utility corridor. The commenter also states that the DEIR and appendices do not indicate whether protocol-level surveys were conducted for this taxon during a time when it would have been evident and identifiable. The utility corridor was added to the project description after rare plant surveys and initial reporting were completed, and Table 4.4-4 in Section 4.4, *Biological Resources*, of the DEIR identifies those special status plant species with potential to occur in the utility corridor including Mason's neststraw. The reference to Mason's neststraw having no potential to occur in the BSA was a clerical error, and the DEIR has been revised accordingly (see response 16.173).



Response 12.15

The commenter argues that the DEIR is “misleading as to several of the target annual plant species being ‘absent’ from the survey areas” and states that “it is virtually impossible to prove a species’ absence, especially within a survey area that encompassed either 4,361 acres (as reported in Table 4) or over 4,800 acres (as reported on p.31). This is especially true for annual plant species, which may have seed banks present in the soil, but the seeds do not germinate in a given year (e.g., due to drought).” The evaluation of occurrence potential is based on a suite of evidence including soil type, physiography, aspect, ground cover, and the vegetation community present at the site. Species were determined to be absent from the project site based on the lack of suitable habitat, lack of suitable microhabitat conditions (soil, aspect, physiography, etc.), lack of observations during surveys for species known to be in bloom (based on review of reference populations), or a combination of these factors. This provides a reasoned evaluation of the potential for occurrence. It should be noted that many special status species that were not observed have been considered as possible or likely to occur on the project site.

Response 12.16

The commenter states that the DEIR’s survey report “lacks details regarding the number of personnel hours spent checking reference sites and conducting the regional contextual surveys,” and argues that as a result, the DEIR and appendices “falsely inflate the amount of time dedicated to Project-specific surveys.” See master response 2 for details on the level of effort involved in reference site and regional context surveys.

Response 12.17

The commenter argues that the deficiencies they describe and those highlighted in Mr. Cashen’s letter “result in a DEIR that fails in establishing an accurate environmental baseline in violation of CEQA.” An extensive level of analysis was undertaken for the evaluation of biological resources on the project site, including a wide variety of field surveys and extensive review of existing literature and databases. As presented in master response 1, these analyses meet the standards required for establishing an accurate environmental baseline for biological resources under CEQA.

Response 12.18

The commenter states that the DEIR indicates known records of the San Joaquin kit fox to the south and east of the project area; however, there is no indication whether surveys were conducted to the north and west of project area. The commenter also states that the DEIR is inconsistent in its assessment of whether the project area could be a wildlife corridor for the San Joaquin kit fox. Please refer to responses 12.A.19 and 12.A.20.

Response 12.19

The commenter states that adequate trapping was not conducted to determine the presence of the San Joaquin pocket mouse and argues that information based on the CNDDDB is “not a substitute for site-specific surveys.” The commenter also argues that the DEIR “fails to acknowledge that if the pocket mice in the project area represent part of a metapopulation structure, loss of this



subpopulation could negatively impact overall species viability and diversity.” Please refer to response 12.A.24.

Response 12.20

The commenter argues that “the Project area was not adequately surveyed for the California tiger salamander because not all suitable breeding sites were surveyed and it was only surveyed during drought conditions” and states that as a result, “definitive statements made in the DEIR about baseline conditions for occurrence or habitat suitability at the Project area are not supported.” Please refer to response 12.A.16.

Response 12.21

The commenter argues that the survey team did not sample the project and biological assessment area for California red-legged frog according to USFWS protocol. Specifically, the commenter argues that only three surveys were conducted, no night surveys were conducted, and the survey was completed during “suboptimal drought conditions.” The commenter argues, that as a result, “the full extent of California red-legged frog occurrences across the Project and survey area was likely underrepresented and could result in unmitigated impacts to the species.” Please refer to response 12.A.17.

Response 12.22

The commenter states that protocol surveys for the western pond turtle were not conducted despite the existence of established protocols and argues that the DEIR “fails to establish the abundance and distribution of western pond turtle in the Project area, which could cause ‘severe consequences’ for the conservation of the species.” Please refer to response 12.A.18.

Response 12.23

The commenter states that no protocol-level surveys were conducted for Swainson’s hawk nest sites and notes that CDFW sent a letter to the County indicating the need for protocol-level surveys in the project area. The commenter also states that “the Biotic Report recognized the existence of CDFW promulgated standards for locating nest sites, and it acknowledged surveys adhering to those standards have not been conducted for the Project.” As such, the commenter argues that the DEIR fails to establish accurate baseline information regarding the Swainson’s hawk. Please refer to response 12.A.13.

Response 12.24

The commenter notes an inconsistency in the descriptions of occurrences of the mountain plover within the vicinity of the project site. The commenter notes that the DEIR states that “there are no CNDDDB records for mountain plover within 20 miles of the BSA, but small flocks have been reported in the Cholame Valley as close as four miles south of the Project site,” however, “the mountain plover is indicted to occur on the 1-mile radius line on the southern side of the Project area, as documented in Fig. 4.4-6 (CNDDDB records) of the DEIR.” Please refer to response 12.A.14.



Response 12.25

The commenter states that surveys were not conducted for northern harrier nests on and around the project area, nor were nest searches conducted for any other species except the golden eagle, however, “[a]ccording to the Biotic Report, harriers are known to nest in Cholame Valley.” Please refer to response 12.A.15.

Response 12.26

The commenter notes an inconsistency in the descriptions of occurrences of pronghorn within the project site. The commenter notes that the DEIR states that “pronghorn and Tule elk have not been observed with the Project site,” however, the applicant’s website states that pronghorn have been observed within the access road corridor and reportedly in the southern end of the project site. As such, the commenter states that the DEIR is “inaccurate and does not properly establish baseline conditions regarding the presence of pronghorn on the Project site.” Please refer to response 12.A.25.

Response 12.27

The commenter, through a reference to Attachment B to their comment letter, claims that the hazardous materials baseline is inadequate because the DEIR did not rely on a Phase I Environmental Site Assessment (ESA). As described in response 12.B.2, a review of the Envirostor Hazardous Facility Database revealed that the proposed project site is not listed on the Cortese List, and furthermore that there are no known environmental sites of concern located within one mile of the project site. Therefore, the project site poses no significant risk of creating a hazard to personnel as a result of being located on a known site contaminated with hazardous materials. Further, review of a Phase I ESA prepared for the applicant in February 2014 and provided to the County in October 2014 (refer to FEIR Appendix N) confirms the analysis in the DEIR (refer to response 12.B.2).

Response 12.28

The commenter, through a reference to Attachment B to their comment letter, notes the presence of two oil and gas wells on the project site, and states that there is not enough information in the DEIR to determine the methods by which two existing wells were abandoned. As described in response 12.B.2, three petroleum wells have been drilled on the site; however, all three wells have been plugged and abandoned. Therefore, these wells would not impact the site in a manner that would result in the designation of a REC.

Response 12.29

The commenter claims that the DEIR does not adequately analyze the potential for pesticides in project site soils or groundwater. As noted under Impact HAZ-1 in Section 4.8, *Hazards and Hazardous Materials*, according to the Monterey County Agricultural Commissioner, no pesticide or herbicide use is reported on the project site or adjacent parcels (Monterey County Agricultural Commissioner, 2013). In addition, project-related improvements within the eastern portion of the proposed utility corridor (where irrigated crop production occurs) would be



limited to the installation of temporary and narrow water infrastructure. Based on historical and current land use on the project site, no residual pesticides, herbicides, or other contaminants are anticipated to be found in the soil and/or groundwater. The likelihood that construction workers, operational staff, and/or adjacent sensitive receptors could be exposed to substantial quantities of residual agricultural chemicals in on-site soils is remote.

Response 12.30

The commenter states that a Phase I ESA should be prepared for the project site. Refer to response 12.27.

Response 12.31

The commenter claims that the DEIR lacks substantial evidence to support its conclusions and fails to incorporate all feasible mitigation measures necessary to reduce such impacts to a level of insignificance. The commenter then generally describes the basic purposes of CEQA: to inform decision-makers and the public about environmental effects of a project, and to avoid or reduce environmental damage where possible through alternatives or mitigation measures. The comment does not specifically address the DEIR, other than to claim that it fails to achieve these basic purposes. Because the commenter provides no evidence to support this claim, a specific response to this comment is not feasible. Refer to responses 12.32 through 12.56 for responses to specific comments related to this claim.

Response 12.32

The commenter states that the DEIR's treatment of potentially significant impacts to biological resources does not comply with CEQA's mandate to analyze the project's impacts on the environment and that the County lacks substantial evidence to support a finding regarding the project's impacts on biological resources. Specifically, the commenter argues that there are deficiencies in the Biotic Report (HTH 2014b; DEIR Appendix E.1), Biological Resources Impact Analysis and Addendum to Biotic Resources Report and Biological Resources Impact Analysis (HTH 2014a; DEIR Appendix E.2, and HTH 2014e; DEIR Appendix E.13, respectively), and other documents the DEIR relies on and in the DEIR's assessment of the project's impacts on biological resources. The commenter contends that because Mr. Cashen based his opinion on facts specific to the proposed project, his opinion constitutes substantial evidence that the project may cause unmitigated significant impacts to biological resources. The commenter further argues that the surveys that were conducted do not constitute substantial evidence and the technical documentation excludes details regarding survey methodology.

The commenter makes general comments about the inadequacy of the biological evaluations and lack of sufficient information included in the technical reports based on the commenter's review of Mr. Cashen's specific comments, but does not identify any specific concerns regarding the biological evaluations. As such the County directs the commenter to the specific responses to Mr. Cashen's comments (see responses 12.A.1 through 12.A.70) as well as master response 1 and master response 2 in regards to the adequacy of the biological surveys and the evaluations of potential impacts to biological resources. As to the point that Mr. Cashen's opinion constitutes substantial evidence that the project may cause unmitigated significant impacts to biological



resources, the County has provided responses to all of Mr. Cashen's specific comments, and in so doing presents a differing expert opinion on the adequacy of technical studies and evaluation of potential impacts to biological resources. That is, the DEIR has based the impacts analysis on a reasonable and appropriate analysis of the existing biological conditions on the project site, and as such has appropriately identified potential impacts, and provided reasonable and appropriate avoidance and mitigation measures to reduce those impacts to a less than significant level.

Response 12.33

The commenter argues that "the DEIR is deficient because it ignores several species on CDFW's Special Animals list, including, but not limited to: Cooper's hawk, ferruginous hawk, horned lark, prairie falcon, Lewis's woodpecker, yellow-billed magpie, and Lawrence's goldfinch." Please refer to response 12.A.3.

Response 12.34

The commenter contends that the proposed mitigation measures for sensitive species are inadequate, and thus "the County has not ensured Project impacts to sensitive biological resource would be reduced to a less-than-significant level." This is a general comment on the efficacy of specific mitigation measures and the comments regarding the adequacy of mitigation measures provided by Mr. Cashen. As such, refer to responses 12.A.46 through 12.A. 70.

Response 12.35

The commenter raises concerns regarding Mitigation Measure B-1(w) in Section 4.4, *Biological Resources*, of the DEIR on size and quality of relocation sites for California tiger salamander and California red-legged frog relocation. Mitigation Measure B-1(w) states that sites appropriate for translocation of CRLF and/or CTS would be determined in consultation with CDFW and/or USFWS, as appropriate (based on species status with each agency). Take statements issued by CDFW and USFWS would provide specific guidance on relocation technique, habitat suitability, and reporting requirements. Relocation can only be conducted by authorized biologists with the requisite take authorizations from the relevant wildlife agencies. Identification of appropriate receiver sites requires agency input, and additionally the selection of one site over another among suitable sites identified through agency consultation may depend on specific conditions in the field at the time relocation is done, such as presence or absence of water, condition of vegetation, etc. To finalize these sites in the DEIR without agency consultation would be inappropriate and introduce constraints that may result in reduced efficacy of relocation sites. Please see also responses 3.14 and 16.68, in which Mitigation Measure B-1(w) has been clarified.

The commenter also noted a clerical error in the DEIR where Mitigation Measures B-1(bb) and B-1(y) state that "any individual detected during these pre-activity surveys shall be moved to a designated relocation sites identified under B-1(p)," whereas Measure B-1(p) does not identify and document the location(s) and habitat quality of designated relocation sites, but instead discusses wildlife-friendly fence design. Mitigation Measures B-1(bb) and B-1(y) have been revised to correctly refer to relocation sites identified under measure B-1(w) and deleted the incorrect reference to B-1(p).



Response 12.36

The commenter disputes the efficacy of Mitigation Measure B-1(m) and that the mitigation efforts “are incomplete and do not qualify as acceptable measures to mitigate Project impacts on this special-status bird.”

The DEIR refers directly to guidance issued by the CDFW. Appendix E of the CDFG Staff Report on Burrowing Owl Mitigation includes the requirements of Artificial Burrow Location as well as requirements of Exclusion Plans (CDFG 2012). The requirements of Artificial Burrow Location include the requirement for a description of the monitoring that will take place during and after implementation as well as a burrow maintenance plan. Consultation with CDFW and the development of a burrowing owl exclusion plan with CDFW approval is required to conduct passive relocation of burrowing owls. The exclusion plan would require the inclusion of all necessary criteria as outlined in the CDFW Staff Report (CDFG 2012) and the inclusion of this requirement with the DEIR mitigation is appropriate and sufficiently specific to address mitigation of burrowing owl under CEQA. Mitigation Measure B-1(m) in Section 4.4, *Biological Resources*, has been revised for clarification as follows:

- a) The artificial burrow design and installation shall be as described in the Example Components for Burrowing Owl Artificial Burrow and Exclusion Plans per Appendix E of the *Staff Report on Burrowing Owl Mitigation* (CDFG, 2012).

Response 12.37

The commenter summarizes the DEIR analysis that the San Joaquin kit fox was detected on the project site. The commenter argues that there is no substantial evidence to support the DEIR’s conclusion that “the site is unlikely to serve as a distinct or important movement corridor or habitat linkage for any protected or managed species.” The commenter argues that “the Project area is included within an established population of the kit fox; and/or the Project area is serving as a frequently used movement corridor” and states that wildlife corridor monitoring is necessary for an adequate evaluation of the project’s significant impacts on wildlife movement through the project area. The commenter further states that 100-200 foot kit fox den avoidance measures, described in the DEIR, are inadequate because “even during the pup-rearing season, nightly movements average greater than 6 miles.” Please refer to response 12.A.20 regarding movement corridors.

Regarding buffer size, the buffer sizes are consistent with the USFWS 2011 Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance, which recommends minimum 100-foot buffer for known dens, and consultation with USFWS is required for all natal dens. Thus, buffer distances would have agency oversight, and CDFW and USFWS are expected to provide further guidance in any take authorizations issued for the project (USFWS 2011).



Response 12.38

The commenter summarizes project impacts to golden eagles and states that each of the impacts would constitute a take, as defined by the Federal Bald and Golden Eagle Protection Act (Eagle Act), and as a result would require an incidental take permit. The commenter concludes that the DEIR fails to assess the project's compliance with the Eagle Act, or establish a mechanism that ensures the applicant consults with the USFWS and as a result, "the Project would have a significant and unmitigated impact to golden eagles."

Please refer to response 12.A.12.

Response 12.39

The commenter states that the DEIR does not require protocol-level surveys for the Swainson's hawk prior to project construction and argues that as a result "Project impacts to the Swainson's hawk remain potentially significant and unmitigated."

Please refer to response 12.A.13.

Response 12.40

The commenter contends that the DEIR does not adequately address the potential for avian collisions, that the level of bird mortality due to collisions cannot be accurately estimated with the available data, and that the DEIR does not contain any specific measures to mitigate avian collisions with the project's solar arrays and as a result "the Project would have an unmitigated significant impact to special status bird species, including species protected by Fish and Game Code and/or the Migratory Bird Treaty Act." Refer to response 12.A.45 for a discussion on potential impacts to migratory birds protected under the MBTA and Fish and Game Code.

Response 12.41

The commenter states that the DEIR refers to the use of soil stabilizers, including chemicals that have the potential to cause adverse impacts to biological resources. The commenter states that the DEIR does not address potentially significant environmental impacts from the use of chemicals on the site and as such is "legally indefensible."

Mitigation Measure B-1(ff)(16) requires that "Use of chemicals, fuels, lubricants, or biocides shall be in compliance with all local, state, and federal regulations. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation." Chemical soil stabilizers would be subject to this measure and thus are already covered in existing analysis (also see response 12.48, below)

Response 12.42

The commenter describes CEQA requirements pertaining to significant effects and mitigation measures. The comment does not specifically address the DEIR; therefore, no response is feasible.



Response 12.43

The commenter summarizes the DEIR impact pertaining to flooding (Impact HYD-5 in Section 4.9, *Hydrology and Water Quality*). The commenter disagrees with the assessment that impacts would be less than significant “based on assurances that it will incorporate those measures and other unknown recommendations.”

Refer to responses 16.4 and 16.121 in Comment Letter 16. The project description has been revised to incorporate Applicant Proposed Measure (APM) 11, which states that the applicant will prepare a design level drainage analysis that will ensure that project facilities are not placed in areas where they would be subject to significant flood or erosion hazards or affect the existing capacity of affected watercourses. This APM is generally consistent with the recommendations contained in the *Preliminary Drainage Report* (RBF 2013) and *Preliminary Drainage Analysis Addendum* (Wallace Group 2014), with the exception of the requirement that solar modules be placed a minimum of 1 foot above the 100- year water surface elevation. While this APM is considered part of the project, the performance measures listed in the analysis of Impact HYD-5 are also required to be incorporated into the final drainage report, which is required consistent with Section 16.12.060 and 16.12.070 of the Monterey County Code. In addition, the design level drainage analysis shall contain measures to ensure that any project-related improvements within 50 feet from the top of bank of on-site drainages will not result in significant erosion related hazards and that these improvements will not affect the existing capacity of the affected watercourse, as required by Chapter 16.16 of the Monterey County Code. As noted in Section 4.9, *Hydrology and Water Quality*, the Monterey County Water Resources Agency (MCWRA) will review and approve the design-level drainage analysis, thus ensuring that the drainage analysis incorporates the required measures. Because this is an existing requirement, and because meeting this requirement would ensure that impacts remain less than significant, additional mitigation is not required to reduce the impact.

The commenter further claims that the violation of MCC 16.16 by developing within 50 feet of the top of a watercourse must be evaluated as a potential significant impact to be avoided or mitigated. In contrast, MCWRA contends that the DEIR adequately evaluates development within 50 feet of the top of a watercourse by providing accurate hydraulic analysis for the project and requiring substantial compliance with MCC 16.16. As noted in their letter dated October 2, 2014 (Chardavoyne, 2014), the County has the discretion to permit proposed development within 50 feet of the bank of any watercourse. The hydraulic analysis prepared for the DEIR ensures acceptable technical information is available to assess development prior to construction. MCWRA will not approve development within 50 feet of the top of bank of a watercourse unless it can be proven the development would be safe from flow-related hazards and not significantly reduce the capacity of the drainage or watercourse. Compliance with MCC 16.16 would reduce the impacts to a less than significant level by establishing otherwise unknown watercourse velocities and depths for development and requiring compliance with local floodplain recommendations.

As a result of this response, the following has been added to Section 8.0, *References*:

Chardavoyne, David E., Monterey County Water Resources Agency. California Solar Flats (PLN 120294) DEIR response to comments on flooding hazards. October 2, 2014.



Response 12.44

The commenter claims that the flow estimates relied upon in the *Preliminary Drainage Report* and DEIR are inaccurate and flooding and erosion potential is significantly underestimated, citing the analysis provided by Thomas Meyers (Attachment C to the comment letter). Refer to responses 12.C.1 through 12.C.8 for specific responses to Attachment C.

MCWRA reviewed this comment and disagrees with the contention that calculations were inaccurate. According to MCWRA, the hydraulic analysis developed for the DEIR is acceptable for environmental review and design-level purposes (Chardavoyne, October 2, 2014). It is the determination of the Monterey County Floodplain Administrator that the DEIR provides accurate analysis of the potential flooding hazards, and that the DEIR evaluated Impact HYD-5 through sufficient hydraulic analysis and concluded the project would not expose structures to potential flood loss (*ibid*).

In addition, given that the property is absent of any FEMA Special Flood Hazard Areas (effective 4/2/2009) or State of California Department of Water Resources Awareness Floodplain Mapping efforts (effective 5/19/2003), the Monterey County Floodplain Administrator concludes the flood hazards for the project are very limited. It would be highly unlikely that by updating calculations, as recommended by the commenter, the new result would be a significant change to the area available for development (refer also to responses 12.C1 through 12.C.8). As stated by MCWRA General Manager David Chardavoyne (2014), the DEIR has provided substantial evidence that Impact HYD-5 is less than significant and has adequately provided technical information for the public to make an informed assessment.

Response 12.45

The commenter claims that the air quality section fails to disclose information necessary to evaluate the project's construction emissions. The comment does not specifically address the DEIR, other than to claim that it fails to disclose information. Because the commenter provides no evidence to support this claim, a specific response to this comment is not feasible. Refer to responses 12.46 through 12.48 for responses to specific comments related to this claim.

Response 12.46

The commenter suggests that additional mitigation measures are available to reduce the project's construction-related emissions to a less than significant level, citing the analysis provided by Mr. Hagemann and Mr. Sutherland (Attachment B to the comment letter). Refer to response 12.B.5. As noted therein, construction emissions, impacts, and mitigation are described in Impacts AQ-2 and AQ-9 of the DEIR, and revisions to strengthen the applicable Mitigation Measures AQ-2(a), AQ-2(b), and AQ-2(c) are discussed in detail in response 4.2, response 4.13, response 9.2, response 16.22, response 16.23, and response 16.24. The revised construction mitigation measures incorporate the maximum feasible mitigation measures recommended by MBUAPCD and SLOAPCD, including Tier 3 construction equipment, limitations on visible dust emissions, Best Available Control Technology (BACT) to reduce ozone precursor emissions from construction equipment, dust suppression measures including watering, and provisions to minimize track-out soil.



Response 12.47

The commenter suggests that the DEIR failed to adequately evaluate the potential for significant air quality impacts resulting from diesel particulate matter emissions, citing the analysis provided by Mr. Hagemann and Mr. Sutherland (Attachment B to the comment letter). Refer to response 12.B.6. As noted therein, the DEIR addresses the potential impact associated with health risks from diesel PM during construction in Impact AQ-4, and finds that the health risk associated with construction emissions would be less than significant based on the duration and volume of proposed construction activity and distance between the project site and the nearest residential receptors.

Response 12.48

The commenter states that the DEIR fails to analyze the potential impacts associated with the use of dust suppressants to reduce fugitive dust. The twelfth bullet of Mitigation Measure AQ-2(a) includes chemical soil binders and dust suppressants among the available measures for reducing dust from unstabilized roads, structure pads, and other areas to be paved. The commenter states that the U.S. EPA has identified air quality and health impacts from some dust suppressants, and requests that the DEIR analyze potential impacts from the use of dust suppressants and soil stabilizers, such as impacts associated with a change in runoff from the project site.

MBUAPCD and SLOAPCD provide guidance for the selection of appropriate dust control technologies. The MBUAPCD 2008 CEQA Guidelines (February 2008) provide example mitigation which recommends that projects requiring dust control:

- *Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).*
- *Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydro seed area.*

The SLOAPCD CEQA Air Quality Handbook (April 2012) states that: “Any chemical or organic material used for stabilizing solids shall not violate the California State Water Quality Control Board standards for use as a soil stabilizer. Any dust suppressant must not be prohibited for use by the U.S. Environmental Protection Agency, the California Air Resources Board, or other applicable law, rule, or regulation.” The SLOAPCD CEQA Air Quality Handbook also includes a list of approved dust control suppressants in Technical Appendix 4.3.

Mitigation Measure AQ-2(a) in Section 4.3, *Air Quality*, has been revised as follows:

- All roads shall be stabilized using gravel, non-toxic chemical soil binders (e.g., latex acrylic copolymer), jute netting, or other methods approved in advance by the Monterey County RMA – Planning Department. If necessary, the Monterey County RMA – Planning Department may refer to the list of approved dust control suppressants in the SLOAPCD CEQA Air Quality Handbook Technical Appendix 4.3. For all structure pads and other areas to be paved, seeding or soil binders shall be used if construction or paving will not occur within 10 days of grading;



The above revisions have also been made to Table 4.3-1 (Impact and Mitigation Summary: Air Quality) and Table ES-1 in the *Executive Summary*. Refer also to response 12.41, above.

Response 12.49

The commenter cites the CEQA Guidelines pertaining to reasonably foreseeable indirect environmental impacts. The comment does not specifically address the DEIR. Therefore, a specific response to this comment is not provided.

Response 12.50

The commenter summarizes the DEIR analysis of impacts to agricultural resources and expresses disagreement with the conclusion that impacts would be less than significant. The commenter specifically argues that the temporary nature of impacts to Prime Farmland and Unique Farmland within the proposed utility corridor does not render the impacts to these resources insignificant. However, as noted in Section 4.2, *Agricultural Resources*, improvements within the areas containing Prime and Unique Farmland would be limited to the installation of temporary water infrastructure, which would require minimal ground disturbance. Because of the temporary nature of the disturbance, the area would not be “converted” to a “non-agricultural use.” As a result, the CEQA threshold for this issue [Threshold 1 in Section 4.2.3(a) (Methodology and Significance Thresholds)] is not met.

The commenter further argues that the analysis does not include permanent indirect impacts to agricultural uses. Impact AG-1 acknowledges that some permanent facilities would be located within the utility corridor (including an electrical distribution line and redundant communication line). However, these facilities would not be located on areas designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, which is the threshold being addressed in the impact in question (Impact AG-1). Indirect impacts to agriculture are addressed in Impact AG-3, and include the assessment of project operations (including vehicle operation and the generation of fugitive dust). As noted therein, such effects would not result in permanent conversion of “Farmland” to non-agricultural use.

Finally, the commenter expresses disagreement with the use of Best Management Practices (BMPs) to reduce impacts. The discussion in question, located in Impact AG-3, has been revised to specifically cite the Applicant Proposed Measure (APM) associated with each of the measures listed (refer to response 16.19). These APMs are outlined in Section 2.0, *Project Description*, and are considered part of the project being analyzed. Therefore, they need not be repeated as mitigation.

Response 12.51

The commenter generally describes the need for an EIR to present information in a manner that the foreseeable impacts of the project can be understood, and notes that EIRs have been found inadequate when mitigation depends on management plans that have not yet been formulated. The comment does not specifically address the DEIR. Therefore, a specific response to this comment is not provided.



Response 12.52

The commenter summarizes Impacts T-1 and T-3 in Section 4.12, *Transportation/Traffic*, and then criticizes the analysis because (1) there is no clear timeline for completion of the Caltrans SR 46 widening project, and (2) there is no attempt to mitigate these impacts through alternative means.

The DEIR indicates that Caltrans is currently widening SR 46 from two lanes to four lanes from West Centre Street – McMillan Canyon Road to the four lane expressway section at Branch Road, and that some portions of the widening project have been constructed or are currently under construction. In addition, the DEIR notes that the segment from West Center Drive through SR 41, and the segment immediately east of SR 41, are anticipated to be under construction by 2018, though funding for all sections has not yet been secured (Kimley-Horn, 2013). The DEIR indicates that this information has been validated by a review of Caltrans SR 46 Corridor Improvement Plan (CIP), as these improvements are both identified and included in an adopted funding program. The DEIR thus provides ample detail regarding the Caltrans widening project, and further acknowledges that the project would not likely be completed until after construction of the proposed project.

The DEIR identifies improvements that would mitigate the impact - the Caltrans widening project, as discussed above. The conclusion that impacts would be Class I, *significant and unavoidable*, derives from the fact that this improvement would not be completed until after construction of the project.

Response 12.53

The commenter claims that the DEIR does not provide an analysis of the potential impacts resulting from the development of the park-and-ride lots. Park-and-ride lots are addressed in Impact T-7 in Section 4.13, *Transportation/Traffic*. As noted under response to comment 12.8, available details regarding the locations of the park-and-ride lots have been added to the discussion of Impact T-1. Although some detail regarding the anticipated park-and-ride lot locations is available, the size, design, and exact location of the parking facilities is not known at this time. Therefore, there is the potential for adverse impacts to occur in several issue areas including but not limited to aesthetics, biological resources, water quality and hydrology, noise and transportation and traffic. Mitigation measure T-7 outlines siting and design criteria for park-and-ride lots that, when followed, when ensure that such impacts remain less than significant.

The commenter further states that concluding an impact is significant and unavoidable without attempting feasible mitigation violates CEQA. The park-and-ride lot impact in Section 4.13, *Transportation/Traffic*, was found to be Class II, *significant but mitigable*. Refer to response 12.52 for a discussion of feasible mitigation for Impacts T-1 and T-3, which were found to be significant and unavoidable.

Response 12.54

The commenter states that the mitigation for Impact PS-1 in Section 4.12, *Public Resources*, is uncertain because it fails to identify a source of funding. In response to this comment,



Mitigation Measure PS-1(c) has been revised to clarify that the applicant is responsible for funding. Note that this measure was also revised in response to comment 6.2 to clarify that the agreement would be with South Monterey County FPD/CAL FIRE (and not “Cal Fire”). Revised measure PS-1(c) and the associated *Significance After Mitigation* discussion is included below.

PS-1(c) Fire Protection during Construction. Prior to the issuance of a construction permit, the applicant shall enter into an agreement with ~~Cal Fire~~ South Monterey County FPD/CAL FIRE to provide sufficient fire protection services during the non-peak fire season for the duration of project construction via provision of sufficient funding (supplied by the applicant) and other measures necessary to keep the ~~Cal Fire~~ South Monterey County FPD/CAL FIRE Parkfield substation operational during the non-peak fire season. The measures to assure sufficient fire protection services in accordance with existing standards shall be subject to the review and approval of ~~Cal Fire~~ South Monterey County FPD/CAL FIRE and may include but not be limited to the following: funding (by the applicant) for provision for fire personnel, increasing engine availability in the area, and/or provision of a helicopter landing space in consultation with ~~Cal Fire~~ South Monterey County FPD/CAL FIRE, the use of which will be restricted to emergency use only. A copy of the final, executed agreement shall be submitted to the County prior to the issuance of a construction permit.

Significance After Mitigation. Compliance with existing County ordinances and implementation of Mitigation Measures PS-1(a) through PS-1(c) would reduce potential impacts relating to emergency access and provision of emergency services. As noted above, year round staffing at the local ~~Cal Fire~~ South Monterey County FPD/CAL FIRE station during the construction phase [as required by Mitigation Measure PS-1(c)] would address response times to the site. Impacts would therefore be less than significant.

Response 12.55

The commenter states that the DEIR fails to analyze impacts caused by decommissioning activities, and that a more complete description of decommissioning activities is required. Refer to response 12.10. As noted therein, it is too speculative to provide details describing specific decommissioning activities and potential impacts that could occur far into the future. Representative procedures for decommissioning are therefore provided, based on the applicant-provided Conceptual Restoration Plan for Project Decommissioning prepared for planning purposes, and current decommissioning practices. Based on this description, the DEIR provides a good-faith effort at assessing decommissioning impacts in each of the environmental impact sections based on a worst-case scenario that decommissioning impacts would be similar to environmental impacts associated with the construction phase. Refer to Sections 4.1 through 4.14 of the DEIR for a discussion of impacts resulting from decommissioning activities.



The commenter additionally states that the DEIR frames the project as a “temporary” displacement of agricultural resources, and suggests that a detailed restoration plan is required to assure that impacts are indeed temporary. It should be clarified that the only “temporary” agricultural impacts in the DEIR are those pertaining to Prime and Unique Farmland. As noted in Impact AG-1 in Section 4.2 *Agricultural Resources*, development activities associated with the proposed project that could affect Prime or Unique Farmland would be limited to the installation of temporary water infrastructure. Thus, these impacts would only occur during construction (a 12 to 24 month period) and would therefore be temporary. No other agricultural impacts – including those to off-site or adjacent agriculture – are described in the DEIR as temporary.

The commenter further states that the DEIR fails to adequately investigate and mitigate air quality impacts related to decommissioning. Refer to Impact AQ-7 in Section 4.3, *Air Quality*, for a discussion of air quality impacts from project decommissioning. As noted therein, the potential air quality impacts associated with decommissioning activities will depend upon then-current environmental conditions at the site and surrounding area, the duration of decommissioning activities, and then-current decommissioning practices, site conditions, and regulatory requirements. Despite the lack of available details, a good-faith effort of analyzing decommissioning impacts is provided. Based on this analysis, impacts related to temporary pollutant emissions and unmitigated exposure of sensitive receptors to potential health hazards associated with the *Coccidioides* fungus were determined to be potentially significant. Mitigation Measures AQ-2(a), AQ-2(b), and AQ-2(c) would reduce fugitive dust and exhaust emissions associated with project decommissioning. These mitigation measures, or equivalent measures based on available technology at the time of project decommissioning, would be required during project decommissioning, if proposed.

The commenter argues that impacts related to decommissioning would not be similar to construction, because decommissioning would require excavation/removal rather than installation. It should be clarified that decommissioning is considered similar to construction in that effects would be temporary, and that ground disturbance would be limited to within the project site boundaries.

Refer to response 12.48 for a discussion of soil stabilizers/dust suppressants.

Response 12.56

The commenter states that the DEIR fails to adequately address odor impacts, and suggests that diesel exhaust odor can be objectionable to people. The commenter further notes that a 24-month construction period may not seem “short-term” to those living in nearby residences. Refer to Impact AQ-5 in Section 4.3, *Air Quality*. As noted therein, odor emissions from the project would include those associated with vehicle and engine exhaust and fueling during construction. There are two residences located within 1,000 feet of the project site, and prevailing winds would transport odors away from these residences. Further, despite a 12 to 24 month construction period, these residences would only be subject to nearby construction for a relatively short period, given their location at the northernmost end of the project site, away from the bulk of construction activities. Based on the analysis in the DEIR, short-term fueling odors during construction would not impact a substantial number of people and impacts would be less than significant.



Response 12.57

The commenter generally describes CEQA requirements for cumulative impacts, and suggests that while the DEIR does identify the size and location of other renewable energy projects in the region, it does not isolate those projects that would be constructed concurrently with the proposed project. Refer to Section 5.2.2 (Solar Projects Affecting Similar Resources) of the DEIR. The status of each of the cumulative solar projects is described therein, including construction details (where available). As described, construction of the California Valley Solar Ranch is complete; construction of Topaz Solar Farm is underway; Quinto Farms would be constructed from July 2014 to approximately late 2015; the Maricopa Sun Solar Complex is approved and the first to phases are planned; the Kern Solar Ranch is currently on hold; the Tranquility Solar Generating Facility is not yet under construction, pending completion of CEQA review; and the Westlands Solar Park is currently undergoing CEQA review. In addition, as stated on page 5-11 of the DEIR, “each cumulative project has its own implementation schedule, which may or may not coincide or overlap with the California Flats Solar Project schedule. However, to be conservative, the cumulative analysis assumes that all projects in the cumulative scenario are built and operating during the operating lifetime of the proposed California Flats Solar Project.”

The commenter further criticizes the analysis in Section 5.0, *Cumulative Scenario and Methodology*, as being incomplete. This section includes a list of cumulative projects and describes the cumulative analysis methodology, but does not provide analysis. The cumulative analysis is provided at the end of each environmental impact section (Sections 4.1 through 4.12 of the DEIR).

The commenter disagrees with the statement in Section 5.0 that the “majority” of projects in Table 5-1 would be minor. As acknowledged in the text immediately preceding Table 5-1, “Many projects in the cumulative effects scenario are limited in their geographic extent and would result in minor construction plans and renovations. Other projects in Table 5-1, such as the solar projects, are expansive in nature and would have the potential to create cumulative impacts despite their distance from the proposed project. The more extensive solar projects in the vicinity of the project site are shown in Figure 5-1.” Thus, although the statement that the majority of projects are minor is factual, the DEIR provides a complete picture of the types of projects included, and thus does not mislead the public, as suggested by the commenter.

Response 12.58

The commenter claims that the project would be inconsistent with several policies of the Monterey County 2010 General Plan, including LU-1.5 and OS-3.1, and the San Luis Obispo County General Plan.

Policy LU-1.5 requires that land uses be designated to achieve compatibility with adjacent uses. The commenter argues that the project would be inconsistent with this policy because agricultural impacts would not be temporary. As clarified earlier in response 12.50 and 12.55, the only “temporary” agricultural impacts in the DEIR are those pertaining to Prime and Unique Farmland within the utility corridor, as this is the only location of such resources and improvements in this area would be limited to the construction phase. Other agricultural impacts are not characterized in the DEIR as temporary. Further, as stated in Table 4.10-2, a



number of mitigation measures are included throughout the DEIR to address potential land compatibility impacts during construction and operation associated with aesthetics, air quality and noise, which would reduce land use compatibility impacts to less than significant and render the project consistent with Policy LU-1.5.

The commenter additionally disagrees with the analysis of consistency with Policy OS-3.1 (which requires BMPs to prevent and repair erosion damage), based on the DEIR's reliance on the hydrology analysis presented in Section 4.9, *Hydrology and Water Quality*. As stated earlier in their letter, the commenter disagrees with the hydrologic analysis, and thus disagrees that the project can be consistent with Policy OS-3.1. Refer to responses 12.43, 12.44, and 12.C.1 through 12.C.8 for responses to the commenter's claim that the DEIR hydrologic analysis is flawed. As stated therein, it is the determination of the Monterey County Floodplain Administrator that the DEIR provides accurate analysis of the potential flooding hazards, and that the DEIR evaluated Impact HYD-5 through sufficient hydrological analysis and concluded the project would not expose structures to potential flood loss. Therefore, the analysis of consistency with Policy OS-3.1 is appropriate.

Refer also to responses 12.59 and 12.60 below, which address the project's consistency with other General Plan policies highlighted by the commenter. It should be noted that, although the commenter states that the project would be inconsistent with County of San Luis Obispo General Plan policies, the commenter does not specify which policies nor provide evidence to support this statement. No further response regarding San Luis Obispo policies is therefore provided.

Response 12.59

The commenter states that the Monterey County 2010 General Plan included policies related to the protection of biological resources. The commenter argues that the DEIR is inadequate in its analysis on biological resources and that impacts are significant and unmitigated. The premise of this comment assumes that the DEIR's analysis of biological resources is inadequate and therefore is not consistent with the Monterey County General Plan. The adequacy of the biological evaluations has been addressed in master responses 1 and 2 and responses 12.A.1 through 12.A.70. The biological evaluations, impact analyses, and proposed avoidance and mitigation measures are reasonable and appropriate, and as such the project is generally consistent with the Monterey County General Plan policies to protect biological resources.

Response 12.60

Policy OS-10.9 requires that future development implement applicable MBUAPCD control measures. The commenter references comments provided by Mr. Hagemann and Mr. Sutherland (Attachment B to the comment letter) suggesting that there are several additional measures that the project could incorporate. Refer to responses 12.B.5 and 12.B.6 for responses to Mr. Hagemann's and Mr. Sutherland's comments in Attachment B. In addition, revisions to strengthen Mitigation Measures AQ-2(a), AQ-2(b), and AQ-2(c) are discussed in detail in responses 4.2, 4.13, 9.2, 9.3, 16.22, 16.23, and 16.24.



Response 12.61

The commenter states that the EIR is inadequate for the reasons described earlier, and suggests that revisions to the DEIR in response to their comments will necessitate recirculation. Please refer to responses 12.1 through 12.60. Several revisions to the DEIR have been made in response to the commenter's letter. However, none of these revisions constitute a new significant environmental impact or a substantial increase in the severity of an environmental impact. Rather, the revisions outlined in responses 12.1 through 12.60 (and elsewhere in this FEIR document) merely clarify and/or amplify the DEIR. Therefore, recirculation is not warranted.

Response 12.A.1

The commenter provides a summary of the proposed project and the qualifications of the authors of the comment letter. The comment is noted.

Response 12.A.2

The commenter summarizes a list of surveys which the Biotic Report (HTH 2014b; DEIR Appendix E. 1) stated the project proponent would complete in 2013 and notes that only one of the seven listed survey reports was included in the DEIR. The commenter argues that "data from the surveys are required to fully assess existing conditions, analyze Project impacts, and formulate appropriate mitigation" and that "deferring the survey results until after completion of the CEQA review process prevents full disclosure of Project impacts." See response 12.12 for a discussion of ongoing surveys and master response1 for a discussion of the adequacy of biological surveys.

Response 12.A.3

The commenter quotes the CDFW's definition of "special animals" and states that the DEIR is deficient because it ignores several of the species on CDFW's Special Animals list, several of which were detected during surveys of the project site and BSA, including: Cooper's hawk, ferruginous hawk, horned lark, prairie falcon, Lewis's woodpecker, yellow-billed magpie, and Lawrence's goldfinch. These are all species with the lowest level of sensitivity (CDFW "Watch List"), and as such specific discussions of these species were not included. With the exception of horned lark, the project site does not support suitable nesting habitat for any of these species, although all species could forage on the project site. Impacts to all of these species are captured under the umbrella of *Raptors and Other Special Status Birds* in Impact B-1, and measures designed to avoid impacts to these species including preconstruction nest surveys and nest avoidance [Mitigation Measures B-1(r) and B-1(s)]. For clarification, the *Raptors and Other Special Status Birds* discussion under Impact B-1 in Section 4.4., *Biological Resources*, of the DEIR has been revised as follows:

Raptors and Other Special Status Birds. The open grassland and riparian areas of the BSA and Utility Corridor study area provide suitable breeding and foraging habitat for a variety of native birds, including golden eagles, bald eagles, California condors, and burrowing owls, which are discussed above. The site also provides suitable foraging and/or breeding habitat for other special-status raptors and bird species, including Swainson's hawks, white-tailed kites, and northern harriers, short-eared owl, long-eared owl, loggerhead shrike, tricolored blackbird, mountain



plover, Oregon vesper sparrow (wintering only), and grasshopper sparrow, as well as several CDFW Watch List species including Cooper's hawk, ferruginous hawk, horned lark, prairie falcon, Lewis's woodpecker, yellow-billed magpie, and Lawrence's goldfinch. Many other native bird species that are protected under state and federal law during nesting could occur and nest on-site. Based on the condition of the site and observations of avian activity in 2012 and 2013, there is a high likelihood of birds nesting within the project site.

Response 12.A.4

The commenter describes the rainfall during the 2011-2012 and 2012-2013 rain years and states that local experts confirmed that germination rates and abundance of native plants in the region were low during 2013. The commenter argues that results of rare plant surveys should be considered inconclusive since they were conducted in such a low rainfall year and the BSA should be resurveyed. The commenter also provides a list of target plant species that project botanists could not locate during visits to reference populations in 2013. The commenter argues that negative results during reference population checks for species that have a potential to occur on the project site demonstrates that surveys were conducted when 20 percent of the species on the target list were not evident and/or identifiable and as a result, the project area needs to be resurveyed. The commenter specifically identifies 11 species that could not be located at reference populations, implying that surveys for these species must be conducted in advance of CEQA evaluation.

Please refer to master response 2 for a discussion of the adequacy of the botanical surveys for evaluation of potential impacts under CEQA. In regards to the 11 species specifically identified by the commenter, none of the identified species are state or federally listed and all have a CRPR rating of 1B.1 or lower. San Joaquin woollythreads were observed at reference populations, oval-leaved snapdragon and Lemon's jewel-flower were evaluated as possible for occurrence on the project site, and the potential for Mason's neststraw occurrence was eliminated based on the lack of suitable habitat. Because suitable habitat is present on the project site, and because no individuals were observed at reference populations for the remaining seven species, Rattan's cryptantha, Cottony buckwheat, diamond-petaled poppy, trumpet-throated gilia, Panoche pepper-grass, and Jared's pepper-grass have been revised in Table 4.4-4 of the DEIR from "absent" to "possible," and based on marginal habitat within the project site La Panza mariposa lily has been revised from "absent" to "unlikely." A number of non-listed special status plant species are considered to have some potential for occurrence on the project site as outlined in the impacts analysis for special status species (see Table 4.4-6 of the DEIR), and the above revisions do not substantially alter the impacts analysis or change the level of significant for impacts to special status species. Therefore, no further analysis is necessary to evaluate potential impacts to special status species, and the proposed mitigation (Mitigation Measures B-1[a] through B-1[e]) are sufficient to address potential impacts to these species.

Response 12.A.5

The commenter states that the DEIR provides inaccurate information regarding the presence of Mason's neststraw, stating that the plant has no potential of occurring within the BSA. Refer to response 12.14.



Response 12.A.6

The commenter contends that the DEIR is misleading in stating that several of the target annual plant species were absent from the survey areas Refer to response 12.15.

Response 12.A.7

The commenter questions the adequacy of plant survey days and seasonal timing to characterize occurrences on the site. Refer to master response 2.

Response 12.A.8

The commenter notes that a new tarplant species, Diablo Range hare-leaf (*Lagophylla diabolensis*) was published in 2013 and added to the CNPS Inventory January 2014 as a CRPR 1B.2 species. The commenter notes that the species is known to occur in the vicinity of the project site, and the project site provides suitable habitat for the species. As a result, the commenter argues that focused surveys for *L. diabolensis* should be conducted prior to project development.

In 2013, a publication by Dr. Bruce Baldwin resulted in revisions to the taxonomy of the genus *Lagophylla* (Baldwin 2013). The species formerly known as *Lagophylla dichotoma* (sensu lato) was divided into two species on the basis of morphological differences, resulting in a new species, *Lagophylla diabolensis*, and a more narrow description for the species *Lagophylla dichotoma* (sensu stricto). In this publication, Dr. Baldwin further states that the newly narrow description of *L. dichotoma* (sensu stricto) applies to plants of the Sierra Nevada foothills and eastern Great Central Valley, which are far removed from the BSA, while occurrences of *L. diabolensis* range into Monterey and San Benito Counties. Only *L. diabolensis* is reported to occur in Monterey County. Under the former taxonomy, potential for occurrence of *Lagophylla dichotoma* (sensu lato) was already analyzed, and *Lagophylla dichotoma* (sensu lato) was determined to have potential to occur in the Access Road area, though it was not documented on site. The EIR has been revised to reflect the change in taxonomy and range for *Lagophylla* as follows:

Table 4.4-4 was edited, and a footnote was added below the table explaining the updated taxonomy and range:

| | | |
|--|--------------------|---|
| <p><i>Lagophylla diabolensis</i>¹ [Formerly included in <i>L. dichotoma</i>, s.l.] forked Diablo Range hare-leaf</p> | <p>--/--/1B.24</p> | <p>Known only from the Diablo Range. Sometimes clay substrate in cismontane woodland and valley and foothill grassland.</p> |
|--|--------------------|---|

¹In 2013, taxonomy of the genus *Lagophylla* was revised. *Lagophylla dichotoma* (sensu lato) was divided into two species. The newly narrow description of *L. dichotoma* (sensu stricto) applies to plants of the Sierra Nevada foothills and eastern Great Central Valley, and does not occur in Monterey County, while occurrences of the newly described *L. diabolensis* occur in the Diablo Range, in portions of Monterey, Fresno, and San Benito Counties (Baldwin 2013).



Table 4.4-6 was also updated, as follows:

| | |
|---|-------------|
| Lagophylla dichotoma <i>diabolensis</i> forked- Diablo range hare-leaf | --/--/1B.42 |
|---|-------------|

Response 12.A.9

The commenter argues that the applicant’s plant list also includes plant species that were not identified to the level necessary to determine rarity. The commenter specifically states that *Isocoma (menziesii)* and *Delphinium (gypsophilum)* should be positively identified to variety/subspecies to determine if the rare variety/subspecies occur in the project area. Refer to master responses 1 and 2. The specific identification of every plant on the project is not required to evaluate the potential impacts from project development under CEQA. The site has been appropriately evaluated for the potential to support special status plant species based on presence of suitable habitat and multiple surveys. Measures have been developed to avoid and/or mitigate potential impacts including preconstruction plant surveys (Measure B-1[c]), special status plant species avoidance and minimization measures (Measure B-1[d]), compensatory mitigation (Measure B-1[a]) and habitat restoration (Measure B-1[b]).

Response 12.A.10

The commenter argues that vegetation types were not sufficiently evaluated to determine their conservation status as sensitive natural communities. The DEIR states that “permanent impacts to these habitats would be significant under CEQA because they would substantially and adversely affect sensitive natural communities. Therefore, this impact would be considered *Class II, significant but mitigable.*” Regardless of what alliances and associations are included within the wildflower field, serpentine bunchgrass grassland and valley needlegrass grassland habitat types, a detailed restoration plan will be developed and implemented using on-site baseline conditions as the guideline for in-kind mitigation to be accomplished. Evaluations of pollinator guilds is far beyond the typical scope of analyses conducted for CEQA review, and would add little to the evaluation of potential impacts to specific sensitive communities. The DEIR specifies and prescribes information that would be required to evaluate the specific characteristics of sensitive communities for which compensatory mitigation will be required as outlined in Mitigation Measure B-1(b). Comments regarding mitigation for wildflower fields are further addressed in response 13.6.

Response 12.A.11

The commenter disputes the characterization of habitat as Riparian Oak Woodland because it is dominated by valley oak, and as such, should be designated as Valley Oak Woodland, identifies four other vegetation types believed to occur in the project area, and that the DEIR failed to disclose, analyze, or mitigate potentially significant impacts to these sensitive natural communities. The County disagrees that Valley Oak Woodland and alkali heath herbaceous alliance are present on the project site; and bunchgrass grasslands and freshwater seasonal and perennial marshes were documented in the DEIR. HTH biologists conducted several surveys of the entire project site to map and characterize the vegetation communities on the project site. Because sensitive communities are known to occur within the region does not imply that these communities are



present on the project site. Additional discussion specific to communities named in this comment are provided in the following paragraphs.

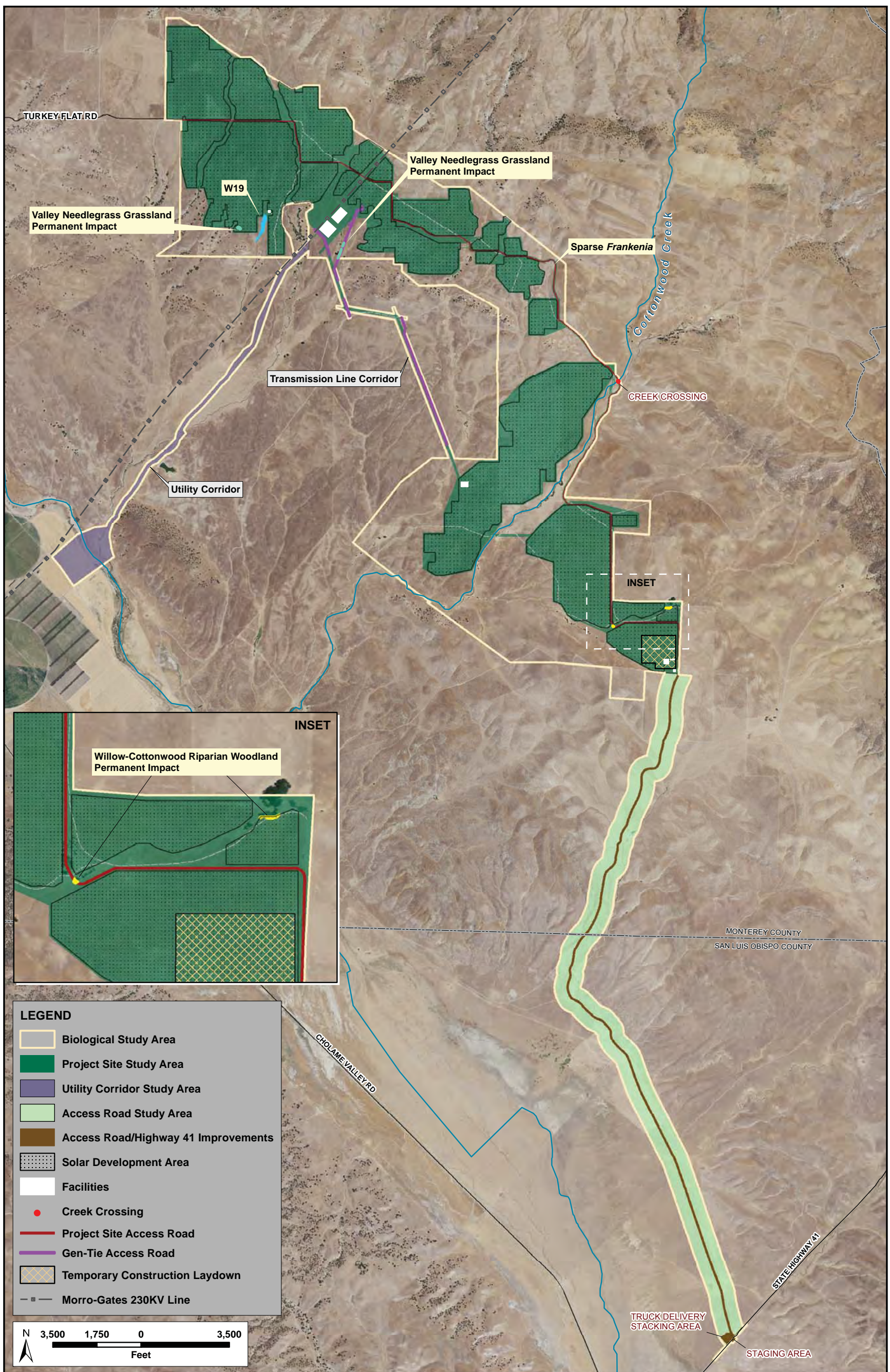
Willow-Cottonwood Riparian Woodland: The project would avoid impacts to this habitat type, which does occur in the BSA and utility corridor study area (9.45 acres, as reported by the Addendum to Biotic Resources Report and Biological Resources Impact Analysis [HTH 2014e; DEIR Appendix E.13) and in the solar generating facility area (SGFA) (1.72 acres, as reported by the DEIR²). As described in the Table 4.4-8 of the DEIR, up to 0.09 acres of permanent impacts may occur to willow-cottonwood riparian woodland. This impact acreage was derived through spatial analysis: the impact would occur because slivers of mapped habitat intersect with road and array buffers generated in GIS, including one improved road crossing that would not remove any trees. None of these impacts would cause loss of, or impacts on, riparian canopy, or substantial modification of riparian habitat. Figure 2-1 displays the minor nature of these impacts over a nearly 2,700-acre impact area. Native riparian tree impacts would be largely avoided. Additionally, Mitigation Measure B-2(i) is required for any permanent impacts on any riparian habitat, and any trees that are damaged or imperiled by project activities would be protected by Mitigation Measure B-5(a) and, if unavoidable, mitigated by Mitigation Measure B-5(b).

² Note: the acreage was reported erroneously in Table 4.4-2 of the DEIR but has been revised to the correct acreage of 1.72; see response 16.169



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Sensitive Community Impact Locations

Figure 2-1

Source: Harvey & Associates, 2014.

Alkali Heath: Alkali heath (*Frankenia salina*) occurs in low numbers in a very restricted area of the SGFA (see Figure 2-1 – this occurrence was also disclosed in the Biotic Report [HTH 2014b; DEIR Appendix E.1]). In the area immediately to the southwest of the northeast corner of the SGFA, scattered alkali heath occurs in some of the mapped wetlands. Alkali heath is not a rare species, but several vegetation associations containing alkali heath are considered sensitive because they have a State rank of S3 or lower (CDFG 2010). As noted in the Biotic Report (HTH 2014b; DEIR Appendix E.1), none of the areas in the SGFA can be considered an alkali heath alliance or an alkali heath dominated vegetation association. Except in a few extremely small areas (e.g., one square foot or smaller), smaller than a minimum habitat mapping unit, alkali heath was never observed to be present in sufficient cover to be considered dominant in the vegetation type. As a whole, these wetlands were dominated in cover by seaside barley and meadow barley, and were mapped as seasonal wetlands (also considered sensitive and a regulated habitat type). Impacts on seasonal wetlands were assessed in the DEIR and mitigated under Mitigation Measure B-3(d).

Chairmaker's Bulrush and Yerba Mansa: Chairmaker's bulrush (*Schoenoplectus americanus*) was identified in the BSA, but outside the SGFA, utility corridor, and access road. This species was observed only in stock ponds outside the project impact area and in the marsh labeled W19 (see Figure 2-1), and would not be impacted by the project. W19 is outside the project impact area, but the DEIR (and BRIA) noted that temporary impacts could occur there as a result of dewatering associated with placement of a well near this wetland. However, mitigation measures such as a well siting study and wetland monitoring (B-3[b] and B-3[c]) would prevent permanent impacts on this habitat if the well is required for project use. If the habitat is affected for a longer period, mitigation would be required. Regardless, it is expected that, even after temporary dewatering, these perennial species would reestablish and would not be impacted. W19 was also the only area of the BSA that contained yerba mansa (*Anemopsis californica*) in any numbers that could be affected by the project. Again, the project is not anticipated to affect this off-site wetland. The DEIR provides measures to require mitigation should impacts occur (Mitigation Measures B-3[b] through B-3[d]).

Purple Needlegrass: Purple needlegrass (*Stipa pulchra*) occurs on the project site, in the serpentine bunchgrass grassland and Valley needlegrass grassland habitats. The project would avoid all permanent impacts on serpentine bunchgrass grassland, as described in the DEIR. Up to 0.27 acre of permanent impacts would occur to Valley needlegrass grassland, specifically identified as a sensitive habitat in the DEIR. Mitigation for impacts on this habitat are required by Mitigation Measure B-2(a), and temporary impact restoration is discussed in Mitigation Measure B-2(b).

Response 12.A.12

The commenter summarizes the Fish and Game Code Section 3511, the federal Bald and Golden Eagle Protection Act ("Eagle Act"), and project impacts to golden eagles. The commenter argues that impacts to bald and golden eagles would constitute a take, as defined by the Eagle Act, and as a result would require an incidental take permit from the USFWS. Impacts to golden eagle such as mortality and disruption of nesting behavior were identified as *potential* impacts and avoidance measures such as speed limits, power line collision and electrocution avoidance measures, preconstruction nest surveys, and nest avoidance buffers are required to ensure avoidance of direct impacts, as identified in Mitigation Measure B-1(s). The applicant's biologists coordinated with and are continuing to coordinate with USFWS regarding the presence of golden eagle in the vicinity of the project site. To address any potential impacts to golden eagles, the applicant has proposed to



prepare a Bird and Bat Conservation Strategy (BBCS) in coordination with USFWS (included as APM-10) that would describe and outline management measures and monitoring protocols that would be implemented on the project site to reduce risk to eagles and other raptors, among other avian and bat species. Loss of foraging habitat would be offset with nested compensatory mitigation under Mitigation Measures B-1(a). Accounting for management measures to reduce potential impacts to nesting eagles (such as surveys and construction buffers from active nests), and analyses of eagle activity on and adjacent to the project site indicates a low level of eagle take risk; however, the applicant will continue to consult with USFWS regarding potential impacts to species, including golden eagle, subject to USFWS jurisdiction.

Response 12.A.13

The commenter argues that the DEIR's analysis of Swainson's hawk is misleading because no protocol-level surveys were conducted for Swainson's hawk nest sites. As discussed in master response 1, protocol-level surveys are not required and generally are not necessary to evaluate potential impacts under CEQA. In California, nesting by Swainson's hawks (*Buteo swainsoni*) occurs in the Central Valley, Great Basin, and Mojave and Colorado Deserts; regular nesting also occurs in the high desert between the Tehachapi Mountains and Lancaster. In the Central Valley, nest sites are associated with riparian forest vegetation and found in trees located in uplands. The BSA is 20 miles from the nearest CNDDDB-documented Swainson's hawk nest, although moderately suitable nesting habitat is present in the riparian and oak woodland portions of Cholame Valley. As reported in the DEIR, according to recent reports, there has also been one active Swainson's hawk nesting territory approximately 13 miles southwest of the project site in San Luis Obispo County, potentially representing a recent return of Swainson's hawk nesting activity to San Luis Obispo County.

Raptor nest surveys were conducted in 2013 (HTH 2013d; see FEIR Appendix E.17). One of the main objectives of the raptor nest survey effort conducted by HTH in 2013 was to search for nesting Swainson's hawks within five miles of the project site. The 2013 nest survey consisted of two sets of site visits. During the surveys conducted in late March 2013, HTH biologists conducted aerial surveys in a helicopter over all habitats potentially suited to nesting Swainson's hawks within five miles of the project site and access road. The biologists flew at low speeds over all areas that included trees, rocky substrates, or electrical transmission towers of sufficient stature to support an eagle or Swainson's hawk nest, often making several passes at different altitudes to sufficiently cover complex terrain. During the second set of surveys conducted in mid-May 2013, all areas within five miles of the project site that were potentially suited to nesting Swainson's hawks were rechecked.

No Swainson's hawk individuals or nests were detected during the nest search effort. Overall, this species is expected to have a relatively low potential to occur on the project during the breeding season, because of the relative lack of quality nesting substrate. Data from the several hundred hours of avian surveys that have been completed to date support this conclusion of low use; this species was observed once in the spring during the 2013 avian use surveys (a migrant was seen flying at an altitude of over 492 feet); one individual Swainson's hawk was also observed incidentally as part of the ongoing 2014 eagle use surveys. The results of the nesting raptor survey report (HTH 2013d; FEIR Appendix E.17) are consistent with the findings of the DEIR. The DEIR accurately characterized the project site's potential to support nesting Swainson's hawks and has



included reasonable and standard measures to avoid impacts to nesting Swainson's hawks. The preconstruction nest surveys that would be conducted as part of Mitigation Measure B-1(r) would be designed to detect any raptor nest within one mile of construction disturbance, including a Swainson's hawk nest, in the unlikely event that a new nest is built in the area, and appropriate avoidance buffers would ensure no impacts to nesting Swainson's hawks.

Response 12.A.14

The commenter notes an inconsistency in the descriptions of occurrences of the mountain plover within the vicinity of the project site. The statement of no CNDDDB records of Mountain Plover within 20 miles of the project site was a clerical error. Although there is one record of mountain plover within five miles of the project site, this does not substantively alter the analysis of potential impacts as the DEIR already identified suitable habitat on the project site and recognized mountain plover as potentially occurring on the project site (see Table 4.4-4 of the DEIR). The *Mountain Plover* discussion in Section 4.4.2(f) (Special Status Resources) of the DEIR has been revised as follows:

Mountain Plover. Mountain plover do not breed in California; rather they migrate to the Central and Imperial valleys during the winter. There ~~are no~~ is one CNDDDB record for mountain plover, an approximate location recorded centered within 20 five miles of the BSA, ~~but~~ and small flocks have been reported in the Cholame Valley as close as four miles south of the project site (NAS and CLO, 2012). Most observations have been in agricultural lands 10 to 15 miles east of the BSA. No mountain plovers have been observed within the BSA, but suitable foraging habitat is present.

Response 12.A.15

The commenter states that surveys were not conducted for northern harrier nests on and around the project area, nor were nest searches conducted for any other species except the golden eagle, however, according to the Biotic Report (HTH 2014b; DEIR Appendix E. 1), harriers are known to nest in Cholame Valley." As discussed in master response 1, specific focused surveys for many species, including northern harrier, are not required to evaluate the potential impacts under CEQA. The DEIR has identified the project site as containing potentially suitable breeding and foraging habitat for raptors including the northern harrier, and included mitigation and avoidance measures to address potential impacts to nesting raptors, including ground nesting birds such as northern harriers, if present at the time of construction activity as outlined in Mitigation Measures B-1(r) and B-1(s).

Response 12.A.16

The commenter disputes the methodology and conclusions related to surveys conducted for California tiger salamander (CTS). The commenter argues that the project area is within the range of mobility capabilities of the species from known detection sites and that "the County's determination that species occurrence in the Project area is "unlikely" is not supported." As discussed in master response 1, specific focused protocol surveys for all species is not necessary to evaluate impacts under CEQA. The commenter discusses at great length the specific details of USFWS and CDFW guidelines for CTS survey protocol noting such specifics as "Biological field surveys should be conducted for all sites with potential CTS habitat," and "surveyors



should provide strong justification that their data are reliable including but not limited to local climate (e.g., daily rainfall totals, pond filling date, pond drying date) and biological survey data (e.g., other species captured during each sampling interval)." This information is only necessary to support a negative finding for CTS on a project site. In this case, the project has excluded the potential for CTS breeding on the project site based on the lack of breeding habitat. Surveys to identify potential breeding habitat on the project site were thorough and sufficient. Protocol surveys for upland habitat are not required because the extensive surveys and habitat assessments were conducted for CTS to determine the potential for CTS to occur on upland habitat, and all areas within 1.3 miles of suitable breeding ponds were identified as suitable upland habitat for CTS.

Access was not granted to survey all potential CTS breeding ponds within 1.3 miles of the project; however, based on the facts that there was a CNDDDB-recorded observation of the species in the project vicinity and full protocol surveys for the species were not conducted, the upland habitat on the project within 1.3 miles of the off-site potential breeding ponds was identified as potential CTS upland habitat. Thus all upland habitat on the project within 1.3 miles of off-site potential breeding ponds has been identified, and measures to avoid and minimize impacts to individuals of the species, if present in the identified upland habitat, have been incorporated into the DEIR. Additionally, compensatory mitigation has been proposed for permanent impacts to the potential CTS upland habitat.

Surveys conducted within the BSA were sufficient to determine that the project does not contain suitable breeding habitat for the CTS, and that all suitable breeding habitat for CTS within 1.3 miles of the project has been identified. During a reconnaissance-level survey in April 2012 (during a year of above-average rainfall), Dr. Jeff Wilkinson investigated all aquatic features in the BSA to determine whether they presented potential breeding habitat for CTS. He did not observe ponding in the BSA that was deep enough or maintained a hydroperiod long enough to provide breeding habitat for CTS. Ponds that provided such habitat consisted of nearby off-site ponds. All off-site ponds within 1.16 miles of the project site were identified using aerial photographs prior to, and then verified (when access was permitted) during, larval surveys for this species. Further surveys were conducted in spring 2013 at additional ponds during the aquatic larval surveys (Aquatic Larval Surveys Report, HTH 2013a; DEIR Appendix E.7). Those ponds to which access was not permitted were conservatively identified as potential breeding habitat.

Based on identification of all potentially suitable off-site breeding ponds, all upland habitat on the project site within 1.16 miles of these off-site ponds is considered potential upland dispersal and refugial habitat for this species, according to USFWS, CDFW, and current published research (e.g., Orloff, S. G. 2011).

As stated in the California Flats Solar Project 2013 Aquatic Larval Surveys, California Tiger Salamander, California Red-legged Frog report (HTH 2013; DEIR Appendix E. 7), HTH herpetologist Jeff Wilkinson, Ph.D., performed a reconnaissance-level survey to determine the potential for the California red-legged frog and California tiger salamander to be present in the BSA. The survey, conducted in April 2012, followed the Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog, issued by USFWS (2005), and the Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative



Finding of the California Tiger Salamander, issued by USFWS and CDFW (California Department of Fish and Game 2003). During the survey, Dr. Wilkinson investigated all aquatic features on the BSA to determine if they presented potential breeding habitat for California tiger salamanders. Based on the results of the survey, Dr. Wilkinson prepared site assessments documenting site conditions and the location of the BSA relative to known occurrences of California tiger salamanders. The site assessments were submitted to USFWS on November 5, 2012 for California tiger salamander, per protocol standards. In submitting the California tiger salamander site assessment, Dr. Wilkinson requested that California tiger salamander larval surveys be conducted during the breeding season at seven potential breeding ponds outside of the BSA but within 1.3 miles of the BSA. Additionally, Dr. Wilkinson requested, on May 1, 2013, that both California red-legged frog and California tiger salamander surveys be conducted in additional potential breeding ponds north of the BSA, and received concurrence from USFWS on May 15, 2013 that these ponds should be surveyed.

Dr. Wilkinson conducted the three spring larval surveys (in March, April, and May) per USFWS protocols, assisted by HTH herpetologist Steve Carpenter, B.S. In total, 17 ponds were sampled for California tiger salamander. Site conditions during the March surveys were clear with an early morning marine layer, during the April surveys were sunny, hot and windy, and during the May surveys were partly sunny with a marine layer and cool. No California tiger salamanders were observed in the ponds outside of the BSA for which they had access to survey.

Based on the negative findings of the California tiger salamander surveys, the presence of California tiger salamander on the project is unlikely. However, because full protocol-level surveys were not conducted for California tiger salamander, the County and applicant have taken a conservative approach to identifying and mitigating impacts on the species. No breeding habitat for California tiger salamander was detected on the BSA, access road, or utility corridor; and no breeding habitat will be impacted by the project. However, all upland habitat on the project within 1.18 miles of potential off-site breeding ponds has been identified, and measures to avoid, minimize, and mitigate potential impacts to individuals of the species, if present in the identified upland habitat, have been incorporated into the DEIR (see Mitigation Measures B-1[w], B-1[aa], B-1[bb], and B-1[cc] in Section 4.4, *Biological Resources*).

Response 12.A.17

The commenter disputes the methodology and conclusions related to the California red-legged frog (CRLF) surveys conducted for the DEIR. As discussed in master response 1, full protocol-level surveys are not required or necessary to evaluate potential impacts under CEQA. Full protocol-level surveys and supporting documentation are necessary only when defending negative findings for CRLF on a project site. The surveys for this project were conducted to evaluate the potential for the CRLF to occur on the project site, and to identify all suitable habitat that would require mitigation, and as such were appropriate and sufficient. During the reconnaissance-level survey in April 2012 (during a year of above-average rainfall), Dr. Jeff Wilkinson investigated all aquatic features on the BSA and two ponds adjacent to the access road to determine whether they presented potential habitat for CRLF per the *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog*, issued by USFWS. He observed that several pools in the drainages on the BSA and the nearby off-site ponds provided both



aquatic breeding and foraging/dispersal habitat for this species. During the 2012 nonbreeding survey, CRLF were observed in Cottonwood Creek and one unnamed drainage, confirming presence of this species on the BSA. No further surveys were conducted in 2012, per the USFWS protocol, which states “[i]f CRF are identified at any time during the course of the surveys, no additional surveys will be conducted in the area, unless the surveying effort is part of a Service-approved project to determine actual numbers of frogs at a site.” During the three 2013 spring larval surveys, Dr. Jeff Wilkinson and Mr. Steve Carpenter, B.S., surveyed these pools and ponds and observed calling CRLF adult males and CRLF egg masses in March, and CRLF tadpoles in April and May, within several pools of multiple drainages on the BSA, including Cottonwood Creek, and two unnamed drainages (HTH 2013; DEIR Appendix E. 7). They did not find CRLF adults, egg masses, or tadpoles in the nearby (within one mile of the project) off-site ponds that they had access to survey; however, CRLF were detected in one pond south of SR 46.

These extensive surveys for CRLF allow assessment of potential impacts of the project on the species, and facilitate development of appropriate avoidance, minimization and compensation measures. As stated in the *California Flats Solar Project 2013 Aquatic Larval Surveys, California Tiger Salamander, California Redlegged Frog* report (November 1, 2013), HTH herpetologist Jeff Wilkinson, Ph.D., performed a reconnaissance-level survey to determine the potential for the CRLF to be present on the BSA. The survey, conducted in April 2012, followed the *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog*, issued by USFWS (2005), and the *Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander*, issued by USFWS and CDFW (California Department of Fish and Game 2003).

During the survey, Dr. Wilkinson investigated all aquatic features on the BSA to determine if they presented potential breeding habitat for CRLF. Based on the results of the survey, Dr. Wilkinson prepared site assessments documenting site conditions and the location of the BSA relative to known occurrences of CRLF. The site assessments were submitted to USFWS on July 30, 2012 for CRLF, per protocol standards. In submitting the CRLF assessment, Dr. Wilkinson requested that CRLF surveys be conducted in the nonbreeding season to determine if this species was present on the BSA. He received concurrence from USFWS on August 10, 2012 that these surveys would be appropriate. He conducted the nonbreeding season survey of Cottonwood Creek, seven unnamed drainages on the BSA, and two ponds adjacent to the access road on August 16, 2012. CRLF were observed at six locations within Cottonwood Creek, and within one of the unnamed drainages, confirming presence of this species on the BSA within the previously identified aquatic features. No further surveys were conducted at this time per the USFWS protocol, which states “[i]f CRF are identified at any time during the course of surveys, no additional surveys will be conducted in the area, unless the surveying effort is part of a Service-approved project to determine actual numbers of frogs at a site.” Dr. Wilkinson submitted the results of the survey to USFWS on September 5, 2012. In addition, Dr. Wilkinson requested, on May 1, 2013, that both CRLF and California tiger salamander surveys be conducted in additional potential breeding ponds north of the BSA. He received concurrence from USFWS on May 15, 2013 that these ponds should be surveyed.

Dr. Wilkinson conducted the three spring larval surveys (in March, April, and May) per USFWS protocols, assisted by HTH herpetologist Steve Carpenter, B.S. In total, 42 ponds, or in-stream



pools, both on the BSA and outside of the BSA were sampled for CRLF during the three surveys. Site conditions during the March surveys were clear with an early morning marine layer, during the April surveys were sunny, hot and windy, and during the May surveys were partly sunny with a marine layer and cool. Dr. Wilkinson and Mr. Carpenter observed CRLF breeding in seven pools within Cottonwood Creek and one unnamed drainage within the BSA, and in a pond just south of SR 46 outside of the BSA. Adult and/or juvenile CRLF were found in an additional nine pools in Cottonwood Creek and two unnamed drainages within the BSA. The surveys exceed the necessary level of evaluation to determine if the project may impact CRLF, and the DEIR has accurately identified potential impacts to the species and provided appropriate measures (including Mitigation Measures B-1[w], B-1[x], B-1[y] and B-1[z]) to avoid and/or mitigate the potential impacts to this species.

Response 12.A.18

The commenter disputes the methodology and conclusions related to surveys for the western pond turtle. The commenter notes that the project site appears to have a viable population of pond turtles and that loss of that population would have “relatively severe consequences on conservation of the species.” As described in master response 1, protocol-level surveys are not required to evaluate potential impacts to special status species, and are generally only required to inform resource agencies on numbers of individuals if requested, or to support a determination that the species does not occur on the project site (see master response 1 for a more detailed explanation of the adequacy of biological surveys). The project site was evaluated for its potential to support western pond turtle, and the DEIR identified suitable habitat on the project site and potential impacts to this species. Mitigation Measure B-1(t) in Section 4.4, *Biological Resources*, provides avoidance and mitigation for western pond turtle.

Response 12.A.19

The commenter states that surveys for special-status mammal species are inadequately documented in the DEIR. Specifically, the DEIR indicates known records of the San Joaquin kit fox to the south and east of the project area; however, there is no indication whether surveys were conducted to the north and west of project area. SJKF surveys were not conducted to the north of the project area. However, spotlight surveys for the species were conducted west of the project area, along Turkey Flat Road and Cholame Valley Road (see Spotlight Survey Report, HTH 2014f; DEIR Appendix E.14). Further surveys and studies outside the BSA are not required to adequately assess impacts. The BSA was defined based on the applicant’s property rights (in terms of a lease agreement). Where impacts on sensitive resources, such as special status plants, SJKF, golden eagles, and California tiger salamanders might extend beyond the BSA, studies were conducted and impacts assessed where access was granted. Thus, where species’ home ranges or life histories could extend beyond the BSA, surveys were conducted in a larger area, where accessible, to accurately assess both direct and indirect impacts. In certain situations, where access was not granted, potential habitat was identified. When potential off-site habitat was identified, a conservative approach on the side of the resource was always taken. As described in master response 1, an exhaustive protocol survey for all species is not required for the evaluation of impacts under CEQA, and it is not necessary to identify the exact number of individuals of a species that may be present on and adjacent to a project site one or more years in advance of project impacts. Rather, what is required is an evaluation of the potential for special status species



to occur on the project site, and an evaluation of the potential or actual impacts to that species from project development.

Response 12.A.20:

The commenter argues that there is no scientific basis provided to support the DEIR's conclusion that "the site is unlikely to serve as a distinct or important movement corridor or habitat linkage for any protected or managed species." The commenter also cites various sections of text from the DEIR and states that the DEIR is inconsistent in its assessment of whether the project area could be a wildlife corridor for the San Joaquin kit fox..

As stated in the DEIR and in the California Flats Solar Project Spotlight Surveys for San Joaquin Kit Fox and American Badger Report (HTH 2014f; DEIR Appendix E.14), SJKF are known to occur in the BSA. The BSA is located on the northeastern edge of the Palo Prieto/Cholame Valley kit fox population area. The site is at the north (terminal) edge, but outside of a corridor that would connect Carrizo Plain populations of SJKF with the Palo Prieto/Cholame Valley satellite population(s) of SJKF. The DEIR clearly identifies that SJKF are present in the BSA and general vicinity and the site contains some areas of moderate to high suitability for movement of kit fox within the project site. The DEIR further acknowledges the CDFW recovery objectives that conservation of natural lands around edges of core and satellite populations could be affected by the project and that the project could contribute to cumulative threats to kit fox movement; these statements are not contradictory to the statement that the BSA itself is not a major movement corridor.

The comment overlooks the distinction between general movement patterns of SJKF and impacts to identified wildlife movement corridors or critical habitat linkages. The project is west of and outside identified kit fox habitat linkage between western Kern County core populations and Salinas Valley satellite populations (Penrod et al 2010) and outside of the potential Carrizo Plain - Palo Prieto/Cholame Valley corridors. The issue is not whether the project site is within an established population of kit fox - it is - or whether kit fox move through the project site - they do. The issue under evaluation is whether the project is located within a critical habitat linkage or significant kit fox movement corridor. Based on the analysis of wildlife corridors conducted by Penrod et al. (2010), the USFWS Recovery Plan, the most recent USFWS Five-Year Review of SJKF and the specific characteristics of the project site and surrounding region, there is no compelling evidence that the project site itself serves as a distinct, habitat linkage between known kit fox populations (core or satellite), or functions as a critical movement corridor that would be significantly disrupted by project development. The DEIR provides a complete analysis of existing data on SJKF habitat suitability and presence in the BSA, as well as current models for SJKF movement, and references available data on SJKF core and satellite populations (references included data and discussions from the USFWS Recovery Plan; the most recent USFWS Five-Year Review for SJKF; Penrod et al. (2010) Habitat Connectivity Planning Model; other sources as cited in the HTH Biotic Report [HTH 2014b; DEIR Appendix E.1]). This section of the EIR makes distinctions between suitable habitat for SJKF within which SJKF movement would be expected, and key SJKF movement corridors and habitat linkages connecting core and satellite populations, and concludes that while the project site consists of suitable habitat and the species is present on the project site, the site does not constitute a key movement corridor or critical habitat linkage connecting populations.



A typographical error was noted in the first paragraph under Impact B-4 in Section 4.4, *Biological Resources*, of the DEIR and has been corrected as follows:

Penrod et al.'s (2010) regional corridor analysis identified three "target areas," or core areas identified as endpoints that connect core populations. In this instance, the endpoints identified are the Carrizo Plain (at the south end of the species' range) and three locations to the north. The three northern locations, which support stable populations of kit fox, are the Salinas River Watershed, the Palo Prieto/Cholame Valley, and Western Kern County (Antelope Valley) (see Figures 9 and 10, 12 and 13 in Appendix E.1). The project is located within the Palo Prieto/Cholame Valley target area.

Response 12.A.21

The commenter contends that the DEIR is inconsistent, stating that contradictions exist between proposed mitigation and the evaluation of cumulative impacts to SJKF. The cumulative impacts analysis correctly concludes that the required "compensatory mitigation has the potential to reduce potential cumulative impacts by offsetting project impacts on low quality habitat with conservation lands in high quality habitat and within critical regions for habitat connectivity, especially if compensatory mitigation is conducted consistent with the USFWS Recovery Plan for Upland Species of the San Joaquin Valley. By preserving lands specifically designed to provide critical migratory and dispersal corridors for species such as the San Joaquin kit fox, project mitigation can significantly reduce potential cumulative impacts to less than significant." The emphasis here is on the fact that potential cumulative impacts were identified, and that those impacts could be significant if not offset with compensatory mitigation. As stated, implementation of mitigation would reduce impacts to a less than significant level.

Response 12.A.22

The commenter cites the DEIR's description of use of the project area by the kit fox which states "the BSA and Utility Corridor study area both comprise suitable home range and/or dispersal habitat for San Joaquin kit fox" and argues that "if the Project area is a suitable home range, then the Project area is not simply a movement corridor at the northern end of the Carrizo Plain population." It is not clear what the issue of concern is in this comment. The DEIR does not state that the project area is simply a movement corridor at the northern end of the Carrizo Plain. The DEIR clearly identifies the project site as consisting of suitable home range and dispersal habitat for SJKF. The DEIR also distinguishes between suitable habitat and local dispersal from known or potential critical habitat linkages or wildlife movement corridors that connect regional populations (see response 12.A.20), and independently evaluates the potential impacts to local SJKF as distinct from potential impacts to SJKF movement corridors.

Response 12.A.23

The commenter notes that the DEIR summarizes information from the California Valley Solar Ranch that indicated kit fox will continue to inhabit a solar facility after development and states that longer-term negative impacts are likely. The commenter further summarizes negative impacts to the kit fox anticipated during construction and following full project development.

This comment reiterates the impact analysis already provided in the DEIR. The comment is noted.



Response 12.A.24

The commenter states that there are inconsistencies in the DEIR in regards to the San Joaquin pocket mouse and argues that adequate trapping was not conducted to determine the presence/absence of the species.

As stated in master response 1, an exhaustive protocol survey for all species is not required for the evaluation of impacts under CEQA, and it is not necessary to identify the exact number of individuals of a species that may be present on and adjacent to a project site one or more years in advance of project impacts. Rather, what is required is an evaluation of the potential for special status species to occur on the project site, and an evaluation of the potential or actual impacts to that species from project development.

The San Joaquin pocket mouse (*Perognathus inornatus inornatus*) is not specifically known from the BSA or the Cholame Valley, but it has been reported from locales to the east, south, and west of the BSA in the CNDDDB. San Joaquin pocket mouse burrows, along with those of the California pocket mouse (*Chaetodipus californicus*), have a conspicuous but small burrow opening that is approximately two to three centimeters in diameter. Pocket mouse burrows are readily detected during full-coverage ground surveys such as were conducted for the project. Both species of pocket mouse are also regularly associated with Heermann's kangaroo rats (*Dipodomys heermanni*) (Best 1993), and they have been found in the excavated burrows of giant kangaroo rats (*Dipodomys ingens*) by HTH mammalogists. Pocket mouse burrows were not detected during the full-coverage ground surveys and, although this is not conclusive evidence that they are not present on the project site, it does indicate that they are not abundant. Furthermore, the San Joaquin pocket mouse and the California pocket mouse are regularly captured during trapping surveys focused on kangaroo rats. Neither species of pocket mouse was captured during trapping surveys of kangaroo rats conducted in and around the project site, as reported in the California Flats Solar Project Identification of Kangaroo Rats through Morphometric, Ecological, and Genetic Analyses report dated October 2013 (HTH 2013b; DEIR Appendix E.8). The DEIR provides a complete analysis of San Joaquin pocket mouse habitat and occurrences within the BSA, and sufficient field work and background literature/database review were conducted to evaluate the potential for this species to occur on the project site. Impacts at the metapopulations level are possible for all species, not just San Joaquin pocket mouse; however, a metapopulation analysis of non-listed special status species is far outside of the standard and accepted analyses required to evaluate potential impacts to special status species under CEQA.

Response 12.A.25

The commenter describes the pronghorn's history and abundance in Monterey County and notes an inconsistency in the descriptions of occurrences of pronghorn within the project site.

Table 4.4-4 in Section 4.4, *Biological Resources*, of the DEIR states that pronghorn have been documented adjacent to the access road and are considered present in the SFGA and access road areas, as well as likely to occur in the utility corridor area. It further states that tule elk are known from within six miles of the SGFA and utility corridor, and from within two miles of the access road, and have potential to occur in all three areas. Subsequent text in the DEIR indicates that pronghorn and elk were not seen in the project site during biologist surveys conducted for the project, but pronghorn have been documented by others in the southern portion of the project site, and no significant barriers to access by pronghorn and tule elk are present between documented



occurrences and the project site. To clarify sources of reported observations, the following revisions have been made to the *Pronghorn Antelope* discussion in Section 4.4.2(f) (Special Status Resources) in Section 4.4, *Biological Resources*:

Pronghorn Antelope. No pronghorn or their sign were detected within the ~~project site~~SGFA during biological surveys conducted for the project, but they have been observed foraging within the Access Road (Biotic Report, HTH 2014b; DEIR Appendix E.1). Pronghorn have also been documented in the Cholame Valley on both sides of the Access Road and within the southern portion of the project site in previous reports (Penrod et al., 2010). A herd of approximately 40 to 50 pronghorn have been tracked by the CDFW within the Cholame Valley.

The project site is on the northeastern fringe of the Cholame Valley kit fox population, which represents the northern target zone for kit fox connectivity through the Carrizo Plain (Penrod et al. 2010). In Penrod et al. (2010), populations between which movement paths are modeled are termed target zones because they are the end points of a habitat corridor. The results of the full coverage den surveys, camera stations, and spotlight surveys collectively indicate that the relatively small, moderately suitable grassland habitat patches comprising the project site are rarely used by San Joaquin kit fox, and pronghorn and Tule elk have not been observed with the project site. Pronghorn have been observed in the access road area, and were previously reported from other sources as occurring in the southern portion of the project site.

Response 12.A.26

The commenter disagrees with the DEIR conclusion that pronghorn would continue to use corridors through the eastern portion of the project site, and that movement through the access road and utility corridor would continue because no areas would be fenced.

The DEIR provides a complete analysis of potential impacts on pronghorn movement. Based on minimal anticipated impacts, retention of existing habitat, and no proposed fencing along the access road and utility corridor areas, pronghorn are likely to continue to move freely through these areas. The impact analysis provides a detailed assessment of expected changes to movement opportunities resulting from development within the project SGFA where fencing and project structures may modify pronghorn movement. As a result of the analysis, the DEIR requires reasonable avoidance and mitigation (Mitigation Measures B-4[a] and B-4[b]) to address possible impacts to pronghorn movement. As such the DEIR appropriately identified possible impacts to pronghorn movement and provided mitigation to avoid and reduce those impacts where possible, and therefore no additional evaluation is necessary.

Response 12.A.27

The commenter disagrees with the DEIR's conclusion that impacts to movements and degradation of birthing areas of pronghorn, although significant, are mitigable to a less than significant level. The commenter states that the DEIR allows surveys to be conducted within the birthing area from April 1 to June 30 and, if fawns are detected, a buffer of 400 meters (approximately 0.25 mi) shall be established. The commenter suggests that Mitigation Measure B-4(a) be modified to read: "In order to ensure that does and calves are not distressed, no construction shall occur from 15 April to 30



May." Restricting construction during calving season is only necessary if calving is occurring within or adjacent to the project area, and a blanket restriction would result in limiting construction activity even if calving pronghorn are not present, which is not warranted. Preconstruction surveys to identify the presence of special status species is standard practice and is a reasonable and effective approach to identifying sensitive biological resources that require avoidance. Mitigation Measure B-4(a) as written would ensure that calving pronghorn are not disturbed by construction activity, through identification of calving areas, and implementation of avoidance buffers for any active pronghorn calving during the entire calving season.

Response 12.A.28

The commenter cites Mitigation Measure B-4(b) which describes pronghorn-friendly fencing and describes "flaws in the proposed mitigation." Mitigation Measures B-1(b) and B-4(b) relate to the development of the Habitat Mitigation and Monitoring Plan (HMMP) and include a thorough accounting of the specific details that must be included in the HMMP, including specific requirements for pronghorn friendly fencing in the mitigation areas. Evaluation of pronghorn movement pathways would be dependent on the location of mitigation lands, and would be developed as part of the HMMP, and reviewed by the County and CDFW, and as such is reasonable and appropriate mitigation for potential impacts to pronghorn movement. In regards to stipulations in Mitigation Measure B-4(b)(3) and B-4(b)(4), these stipulations have been included so as not to conflict with land management practices and ensure that the applicant is not required to modify property to which they have no ownership or right. The County cannot include mitigation that requires modifications to property that may belong to individuals not involved with the proposed project.

Response 12.A.29

The commenter cites the DEIR's analysis of pronghorn occurrence on the project site and within the vicinity of the project site and the conclusion that "areas within the project site and Access Road are considered to be of medium, medium-high, and high suitability values for pronghorn. The commenter states that "the value of the Project site to pronghorn is indisputable."

The comment is noted; no further response is necessary.

Response 12.A.30

The commenter states that Mitigation Measure B-1(j) is identified as offsetting project impacts to pronghorn, however, "that measure addresses mitigation specifically for impacts to kit fox (*Vulpes macrotis*), not to pronghorn." Typically, compensatory mitigation is not required for loss of habitat for a managed game species. The mitigation measures specific to pronghorn movement and calving (B-4[a] and [b]) provide reasonable and appropriate mitigation to address the CEQA significance threshold for Impact B-4 (i.e. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.). Pronghorn is a managed game species and is not "identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service" and as such specific mitigation for loss of habitat would not be required



under CEQA; however, the DEIR notes that because habitat characteristics for kit fox and pronghorn overlap in the region, compensatory mitigation for kit fox would also provide potential replacement of pronghorn habitat.

Response 12.A.31

The commenter disputes the methodology of surveys for kangaroo rats conducted for the project. Adequacy of the biological surveys in general has been addressed in master response 1 and response 12.12. Protocol-level surveys for kangaroo rats are not required to evaluate potential impacts to special status kangaroo rat species and the surveys completed were robust and appropriate for establishing baseline environmental conditions and evaluating potential impacts with regards to kangaroo rats. USFWS and CDFW do not provide survey protocol guidelines for all species of kangaroo rats (*Dipodomys* spp.). Consequently, HTH biologists followed procedures outlined in *Survey Protocol for Determining Presence of San Joaquin Kangaroo Rats U.S. Fish and Wildlife Service Sacramento Field Office March 2013* for trapping and identifying kangaroo rats. HTH biologists used additional survey methods that have been applied extensively in conjunction with a similar large-scale solar development on the northern Carrizo Plain and across more than 9,000 acres of conservation lands located on the northern and southern Carrizo Plain. All of these methods and the results of these surveys have been extensively reviewed by USFWS and CDFW, as well as by species experts who provided technical oversight. These additional survey methods included full-coverage ground surveys that involved 100 percent visual coverage at close range of the entire BSA – every burrow (or other sign, such as scat or tracks) that could be associated with special-status small mammals was examined, identified, and recorded.

To further confirm the identity of the kangaroo rat species occurring on the BSA, trapping surveys were conducted at seven locations in and around the BSA, where there were clusters of kangaroo rat burrows. A total of 42 kangaroo rats were trapped during the equivalent of 1,400 trap nights. HTH conducted genetic analysis of hair samples taken from these 42 specimens, and acquired a total of 474 base pairs of data for each sample. Of these 474 base pairs, 32 base pairs distinguish Heermann's kangaroo rats from giant kangaroo rats, 27 distinguish Heermann's kangaroo rats from narrow-faced kangaroo rats, and 28 distinguish giant kangaroo rats from narrow-faced kangaroo rats.

The phylogenetic tree produced by this analysis shows distinct genetic divisions between Heermann's kangaroo rat, narrow-faced kangaroo rat, and giant kangaroo rat, with 100 percent nodal support between species (HTH 2013b; DEIR Appendix E.8). All of the kangaroo rats from the BSA clustered with the Heermann's kangaroo rat reference samples, confirming the species identification of *D. heermanni* for all the kangaroo rats trapped and sampled on the BSA. HTH mammalogists are skilled in the identification of kangaroo rats. Full-coverage ground surveys, spotlight surveys, and camera surveys were conducted and overseen by Robert K. Burton, Ph.D., and Howard O. Clark, Jr., M.S., both of whom have extensive experience with the ecology of the region and have conducted these types of surveys throughout more than 10,000 acres of the Carrizo Plain between 2011 and 2013 alone. These previously conducted surveys were primarily focused on the San Joaquin kit fox, American badger, giant kangaroo rat, narrow-faced kangaroo rat, short-nosed kangaroo rat, and San Joaquin antelope squirrel.



Response 12.A.32

The commenter disputes the methodology of kit fox surveys conducted for the project. Please refer to master response 1. The first step of conducting the *U.S. Fish and Wildlife Service San Joaquin Kit Fox Survey Protocol for the Northern Range* (USFWS 1999) requires preparation of an early evaluation, followed by consultation with USFWS. Further, the protocol states that “once initiated, surveys conducted pursuant to this protocol may be suspended prior to completion if kit fox are positively identified within the project site or within 2 miles of the boundaries of the project site.” Spotlight and camera station surveys were not requested by USFWS or CDFW for this project. However, HTH conducted spotlight and camera station surveys in conjunction with a suite of additional surveys, to provide a more comprehensive analysis of SJKF occurrence and use in the project region. This approach provided results that would not have been achieved had only the minimum requirements of SJKF protocol been followed. Spotlight surveys and camera station surveys were not used to specifically characterize the presence or absence of SJKF in and around the BSA. Rather, these surveys were conducted as part of a suite of survey methods designed to characterize potential for occurrence of SJKF and other special-status wildlife in and around the BSA, as a means for evaluating habitat suitability in these different areas and assessing impacts.

Any survey method has biases and limitations, and spotlight surveys may be only marginally effective because of environmental conditions or degree of surveyor expertise (USFWS 2010). Furthermore, the BSA and proposed conservation lands were surveyed using scent-detection dogs trained specifically to detect SJKF scat (see Results of the 2013 Scent Dog Surveys, HTH 2014; included as an attachment to comment letter 16). These dogs are able to detect very old scat, so old that some scats were bleached white. Results of these surveys supported the conclusion drawn from full-coverage grid surveys, spotlight surveys, and camera station surveys: all indicated that the occurrence of SJKF on the project site is known, but low, whereas occurrence near the access road is greater.

Response 12.A.33

The commenter argues that HTH did not fully comply with USFWS survey protocol for the San Joaquin kit fox because scent stations were not used with camera stations. Please refer to master response 1, as well as response 12.A.32.

Response 12.A.34

The commenter disputes the consistency of conclusions in the Spotlight Surveys Report (HTH 2014f; DEIR Appendix E.14) and the DEIR’s analysis of San Joaquin kit fox populations and movement corridors. The quoted references in the comment have been taken out of context, specifically the broader discussion of potential impacts to kit fox movement as a result of impacts to lands adjacent to identified habitat linkages, and potentially cumulative impacts to the species. The DEIR correctly characterizes the project site as outside of any identified or definable SJKF habitat linkage, but also takes the conservative approach that indirect impacts have the potential to affect kit fox movement in adjacent habitat linkages. Section 4.1.3 of the Spotlight Survey Report (HTH 2014f; DEIR Appendix E.14) characterizes the region for kit fox movement, and states that “...the landscape beyond the northwestern and western boundary of



the Project site is dominated by large expanses of oak and ponderosa pine woodlands, which are entirely unsuitable as either home range or dispersal habitat for kit fox.” The report goes on to note that species identified in the woodland areas during spotlight surveys are “...not typically sympatric with San Joaquin kit fox, except within ecotonal boundaries between woodland and open grassland habitats” indicating that these areas do not provide suitable movement corridor areas for SJKF. Beyond the ecotonal boundaries adjacent to the project site lie expanses of montane habitats and woodland habitats that are highly unsuitable for kit fox, rendering the areas to the north and west of the project site unsuitable as corridor habitat. As a consequence, the project site does not support connection between the Cholame Valley population of San Joaquin kit fox and regional populations of kit fox within the Salinas Valley and the Ciervo-Panoche Natural Area. Refer to response 12.A.20 for additional discussions on SJKF habitat linkages and movement corridors. Although the project site is not within known habitat linkages, the site is adjacent to potentially important habitat linkages for this species, and as such, the DEIR includes mitigation to reduce impacts that could potentially indirectly impact SJKF movement within known habitat linkages.

Response 12.A.35

The commenter argues that the DEIR does not properly identify all sensitive natural community types within the project area and therefore does not address impacts to these sensitive natural communities. Please refer to response 12.A.11.

Response 12.A.36

The commenter argues that the DEIR does not translate population numbers for special status plants detected during the surveys into “occurrences” and states that this is the standard used by the CDFW and CNDDDB. Please refer to master responses 1 and 2 and response 12.12. Further, the Biotic Report (HTH 2014b; DEIR Appendix E. 1) as well as subsequent completed technical reports such as the 2014 Special Status Plant Survey Report (HTH 2014h; FEIR Appendix E.15) provide detailed counts and boundaries of rare plant observations such that occurrences are easily inferred from figures. Translation of site-specific mapped boundaries into CDFW CNDDDB occurrences is not a typical analysis conducted as part of protocol botanical surveys; rather, data are submitted to CDFW for comparison with existing data and assignment into occurrences as appropriate.

Response 12.A.37

The commenter disputes the methodology for evaluating whether some special status plants species should be considered significant core populations. Because CRPR species are not yet fully inventoried in the CNDDDB, a complete inventory of extirpated versus extant populations statewide is not available. Complete and current population counts for all extant occurrences of all species reported from the BSA is also not available, and requiring a statewide analysis of all populations of these CRPR species is beyond the analyses required to evaluate potential impacts to non-listed special status plant species under CEQA. Estimated counts and patch size for local populations, including substantial survey areas outside the BSA are inventoried in the Biotic Report (HTH 2014b; DEIR Appendix E.1), the DEIR, and finalized in the 2014 Special Status



Plant Survey Report (HTH 2014h; FEIR Appendix E.15). This information is fully analyzed and the DEIR provides suitable measures to offset impacts to special status plants.

Response 12.A.38

The commenter states that the DEIR does not address “how the presence of the various special-status plants in the Project area relates to the statewide (or nationwide) range of each species.” The commenter argues that “this precludes the ability to assess whether the Project would have a significant impact on a given species’ range.”

Table 4.4-4 in Section 4.4, *Biological Resources*, provides information on range and habitat requirements of special status plants known from the vicinity of the project site, and the DEIR directly refers to the Biotic Report (HTH 2014b; DEIR Appendix E.1) for more detailed discussion of range. The Biotic Report discusses elevation ranges within which each species has been documented, and lists counties in which each taxon has been documented. This information was considered in the analysis provided in the DEIR.

Response 12.A.39

The commenter argues that passive relocation of burrowing owls off the project site is a potentially significant impact under CEQA and must be analyzed, and disputes the DEIR conclusion that impacts on the species can be mitigated. Passive relocation is a standard measure for mitigating potential impacts to burrowing owls, and requires the development of a Burrowing Owl Exclusion Plan to address impacts resulting from passive relocation, and which must be approved by CDFW. Refer to response 12.36 for a complete discussion on burrowing owl impacts and passive relocation.

Response 12.A.40

The commenter states the opinion that the DEIR is inconsistent in its analysis of indirect impacts to the California condor. See responses 16.37 and 16.38 for clarifications made to assessment of impacts to California condor. The DEIR identified potential impacts to this highly imperiled species to ensure that even with the low potential for occurrence on the project site, suitable mitigation for controlling micro-trash [Mitigation Measure B-1(ff)(13)], speed limits [Mitigation Measure B-1(ff)(3)] and carcass removal [Mitigation Measure B-1(ff)(14)] would be incorporated in construction BMPs.

The DEIR identified a potential indirect impact to California condor, but did not identify a significant impact. The loss of potential foraging habitat from project development represents a tiny percentage of the total available potential foraging habitat in the region, thus the indirect impact would be negligible. Loss of a small amount of potential foraging habitat would not have a high impact on the population, particularly given that there is no evidence the site is currently used as foraging habitat by condors. Furthermore, conservation of SJKF lands for compensation to SJKF would also provide permanently protected condor foraging habitat in the region. For clarification on this issue, a portion of the *California Condor* discussion under Impact B-1 in Section 4.4, *Biological Resources*, of the DEIR has been revised as follows:



Indirect Impacts to California Condor. Indirect impacts could include the long-term decline in population viability for California condors; however, ~~Since~~ no roosting or nesting habitat will be affected, and since the project site comprises only a very small area of foraging habitat relative to what is available in the region, no significant indirect impacts to California condors are expected.

Response 12.A.41

The commenter states the opinion that the DEIR improperly combines the discussion of impacts to all other raptors and other special status birds. The DEIR provides separate discussions of special status (rare, listed or candidate species) birds by species and provides discussion of habitat present for each species within the BSA. The discussion of non-special status bird species (species protected under the MBTA) and CDFW Watch List species were combined to present in general birds that did not require a detailed evaluation but that have potential to nest and forage on-site. This is a standard and appropriate level of evaluation for these species under CEQA, and measures for addressing potential direct impacts to these species are covered in Mitigation Measure B-1(r).

Response 12.A.42

The commenter quotes text from the DEIR regarding the potential for native bird species that are protected under state and federal law to nest on-site and states that the DEIR does not mention that the Migratory Bird Treaty Act “generally prohibits negative impacts on all native birds during the nesting season (typically February 1 through September 15).” The commenter also argues that because no focused surveys for nests were conducted, no quantification of the impact caused by construction of the project can be made. Please refer to master response 1 and response 12.12 regarding adequacy of biological surveys.

Response 12.A.43

The commenter disputes the DEIR analysis of rangelands that provide suitable foraging and breeding habitat for raptors and other birds and argues that the DEIR does not address the cumulative impact of the project on habitat that has already been substantially reduced. With regards to the percent loss of rangeland in the region, the DEIR provides a measure of comparison for similar habitat to that present on the project site, and does not attempt to qualify the nature of rangeland habitat for nesting birds and foraging raptors. The project site consists of predominantly rangeland habitat, and the evaluation of the loss of the project site habitat in the light of the total acreage of this habitat in the region is a reasonable and appropriate method for assessing potential impacts to foraging and nesting habitat. Given the extent of rangeland in the region and the very small percentage that would be affected by project development, further evaluation of the specific characteristics of the rangeland in the context of birds protected under the MBTA is not necessary to characterize project or cumulative impacts under CEQA.

Response 12.A.44

The commenter states that the translocation of wildlife out of the project area constitutes a potentially significant impact that has not been disclosed, analyzed, or mitigated in the DEIR.



The mitigation measures have been designed such that in most cases, wildlife would be allowed to passively relocate out of harm's way. In the specific cases where relocation would be required, such as with CRLF and CTS, or where specific guidelines for passive relocation are available (e.g. burrowing owl), incidental take authorization would be required and relocation plans would be reviewed and approved by CDFW or USFWS (see responses 3.14 and 12.35) or relocation plans are already required in the DEIR [see Mitigation Measure B-1(m)].

Response 12.A.45

The commenter disputes the DEIR methodology and conclusions regarding avian collision risk posed by the project's solar arrays.

See master response 1 and response 12.12 regarding the general adequacy of biological surveys and response 16.65 which describes an applicant-proposed measure for bird and bat conservation. The DEIR and supporting biological technical reports assessed the potential for impacts to listed and special status avian species, raptors, and other nesting birds protected under the MBTA. These analyses were based on standard protocol for establishing existing environmental conditions and assessing potential impacts to these species. The DEIR includes a number of mitigation measures designed to reduce and avoid impacts to migratory birds including: preconstruction surveys; biological monitoring; and compensatory mitigation. Mitigation designed to reduce impacts to migratory birds is incorporated in part, or in whole, into Mitigation Measures B-1(m), B-1(n), B-1(r), B-1(s), B-1(ee), B-1(ff) and B-1(gg) in Section 4.4, *Biological Resources*, of the DEIR.

Regarding the potential for PV solar facilities to attract birds that will then collide with and be killed as a result of collision with those panels, little evidence is available to indicate that PV solar panels actually attract birds, no standard for analysis of this issue has been established, and no regulatory agency guidance has been published on this issue. Limited information on bird strikes at solar facilities is available, with the primary study (McCrary, et al, 1986) having been conducted at California's Solar One facility, which used highly reflective mirrors (heliostats) to concentrate sunlight at a centrally located boiler. That study concluded that the mortality effect on local bird populations at the approximate 80 acre site was minimal. It has been suggested that highly reflective panels create the illusion of a body of water that migrating birds may be attracted to, and inadvertently collide with; however, the McCrary study opined that it was the presence of large, man-made ponds and irrigated agricultural fields adjacent the facility that attracted birds to that location. Approximately 27 percent of the recorded bird fatalities at Solar One were water-related species. West Inc. (2014) reviewed impacts at three California solar PV facilities, and concluded that preliminary data indicated that fatality rates for solar arrays are not high in relation to other anthropogenic mortality (e.g., wind projects) and that measurable proportion of the fatalities found at the project may be background and unrelated to the project.

The recent Kagan et al. (2014) study evaluated three solar facilities in southern California, only one of which (Desert Sunlight) consisted of the photovoltaic technology. A total of 61 avian deaths were recorded at the Desert Sunlight facility, and none of these species were state or federally listed. Deaths of birds protected under the MBTA are a misdemeanor offence and do not necessarily equate to a significant impact under CEQA. Impacts to birds protected under the



MBTA and/or considered to be special status by CDFW but which are not federally or state listed, would only be considered significant if those impacts were at the population-level. Loss of small numbers of non-listed birds would not in and of themselves be considered a significant impact under CEQA.

The deaths of species reported from the Desert Sunlight Solar Farm (Kagan et al. 2014) identified the cause of death for 39 of the 61 recorded deaths, and impact trauma was the cause of death in 19 of the deaths. Approximately 33 percent of the recorded bird facilities at Desert Sunlight were water-related species and approximately 60 percent were migrant species. It is noted that Desert Sunlight Solar Farm is located directly in the path between two major desert water bodies (the Salton Sea and Lake Havasu), which presents specific environmental conditions different from those present at the proposed project where no similarly important movement route is present. Furthermore, the number of reported bird mortalities at the Desert Sunlight facility is minor in relation to the numbers of birds that are present at these two lakes (numbering in the millions), and are likely to move between the lakes.

Spain and Germany have the largest amount of installed solar energy facilities in the world, yet no literature is available to indicate that excessive numbers of bird mortalities are occurring at these facilities. Furthermore, the Kobern-Gondorf PV facility (300 MW) in Germany is used as a nature reserve for endangered species of plants and animals (RSPB 2011). Because of the lack of scientific information regarding this issue and the minimal number of bird mortalities that have been contained in anecdotal reports as compared to bird populations, the impact to migratory birds from collisions with PV panels was considered speculative, and was not further analyzed.

Avian activity surveys have been ongoing at the site, and as presented in response 12.12, the Avian Activity Survey Report has been completed (HTH 2014i) and is included in the FEIR as Appendix E.18. HTH ecologists conducted modified point counts (bird use counts [BUC]) at eight sites chosen to represent the proposed project site, including the area proposed for installation of a new transmission line. The 800-meter (0.50mile) radius viewsheds of the eight survey areas collectively covered approximately 44 percent of the project site. Counts were conducted twice per month (one morning count and one evening count) from March 2013 through February 2014 and recorded all birds seen or heard following standard BUC data collection protocol. A total of 4,061 individual birds of 45 species were recorded during the surveys (one full year), including five special-status species: Swainson's hawk (State-listed as threatened), golden eagle (California fully protected), northern harrier (California species of special concern [CSSC]), burrowing owl (CSSC), and loggerhead shrike (CSSC). A full summary of the result is presented in HTH (2014i; FEIR Appendix E.18). The observed species constituted a diurnal assemblage typical of the open grassland, oak savanna woodland, and riparian habitats of the inner Coast Ranges of central California, with species representation varying by season. Based on these surveys, the species most likely to have their habitat modified by installation of the solar arrays in grassland habitat are horned larks, western meadowlarks, Savannah sparrows, and long-billed curlews, but each of these species is relatively common and abundant and unlikely to be substantially influenced by the habitat modification resulting from this project. For most of the species primarily associated with woodland habitats, development of this project is not expected to pose a substantial threat, because woodland habitat would not be directly affected by project activity. The results of this study do not substantially change the



evaluation of impacts to state or federally listed or other special status bird species, and no revisions to the DEIR have been made.

Response 12.A.46

The commenter states the opinion that the Nested Compensatory Mitigation and a Habitat Mitigation and Monitoring Plan (HMMP) are flawed. As a result, the commenter argues that “the County has not ensured Project impacts to sensitive biological resource would be reduced to a less-than significant level.”

Please refer to response 16.48 for revisions to Mitigation Measure B-1(a) that clarify requirements for mitigation lands to be within local range of affected species, and where direct impacts to species occur, not just impacts to suitable habitat, that the sites are within known range of local occurrences. Please refer to response 13.2 for clarification of monitoring requirements for any remedial actions. Mitigation Measure B-1(a) identifies criteria through which proposed mitigation sites would be evaluated to determine if they are suitable to meet mitigation needs, and Mitigation Measure B-1(b) identifies the specific requirements that must be within the management plan for mitigation lands. The identification of suitable mitigation land, qualified land-management entities, and the development of appropriate HMMPs to be completed after CEQA review is a standard and reasonable practice. The DEIR must, and has, provided sufficient detail as to what components shall be included in the HMMP. The existing measures, with edits contained in other responses as stated above, are sufficient as written and no further revisions are required.

Response 12.A.47

The commenter recommends that the DEIR describe the measures that would be taken to increase the carrying capacity of the impacted species at the mitigation sites or otherwise fully mitigate project impacts to state listed species. The DEIR provides conditions that allow either the applicant to provide conservation easements or for the applicant to provide funds to another qualified easement holder, and outlines the minimum qualifications and standing to be considered a qualified easement holder. The DEIR with revisions included in responses 16.48 and 13.2 also outlines the minimum requirements for proposed compensatory mitigation, for nesting compensatory mitigation lands, and for monitoring of compensatory mitigation efficacy. Including further specifics as to the management of compensatory mitigation lands is not necessary to evaluate potential impacts, and would potentially constrain future management of mitigation lands with conditions not consistent with actual management needs.

Response 12.A.48

The commenter argues that the County needs to identify the analysis that would be conducted to determine whether livestock grazing is “beneficial” to the impacted species, who would be responsible for deeming it appropriate and how the appropriate grazing levels and regime would be monitored and enforced. The determination of how compensatory mitigation lands would be managed would be the responsibility of the qualified conservation easement holder. Including this condition allows the conservation easement holder flexibility to manage the lands in the most beneficial way possible. It does not require that grazing occur on mitigation lands,



and does not imply that it would be allowed, only that it can be used as a management tool if deemed necessary and appropriate by the qualified conservation easement holder

Response 12.A.49

The commenter disputes the conclusions in the DEIR's regarding standards for enhanced habitat to benefit multiple species. As required in Mitigation measure B-1(a) of the DEIR, habitat enhancement must meet or exceed the conditions of the habitat for which it is being enhanced. While nested compensatory mitigation may be included in these mitigation areas, the standards for nested compensatory mitigation as discussed in responses 12.46, 13.2 and 16.48 would still need to be met as specified in the DEIR.

Response 12.A.50

The commenter disputes the methodology for identifying the means to ensure that nested compensatory mitigation is commensurate with project impacts and notes specifically that the County cannot assume that all suitable foraging habitat within 10 miles of a nest site is of equal value to golden eagles. The DEIR provided the example that compensatory mitigation land should be within 10 miles of nesting golden eagle as an example of the kind of specific characteristics that shall be included in the evaluation of suitable mitigation lands, and did not specifically state that all land within 10 miles of an eagle nest is necessarily suitable foraging habitat. The DEIR also provided specific language for land acquisition requirements, suitable habitat, enhanced habitat and enhanced habitat standards, and how those measures would be monitored for efficacy. Nesting compensatory mitigation can only be used if these standards can be met, and the qualified easement holder can ensure preservation of suitable habitat for any species included in nested compensatory mitigation.

Response 12.A.51

The commenter argues that three years is not an adequate amount of time to determine the success of compensatory mitigation sites. The DEIR includes requirements that success criteria be outlined in the HMMP and has been revised to include development of a contingency plan should success criteria not be met. Mitigation Measure B-1(b) of the DEIR does not specify only three years of monitoring, rather it specifies *at least* three years of monitoring. For clarification Mitigation Measure B-1(b)(9) of the DEIR has been revised as follows:

9. a requirement that the applicant shall be responsible for monitoring, as specified in the HMMP, for at least three years post-construction or until success of the compensatory lands (especially enhanced habitats) as described in the HMMP can be shown; during this period, regular reporting shall be provided to the County;

Response 12.A.52

The commenter disputes the timing of submittal for the HMMP and the associated success criteria 12 months after issuance of grading permits. Development of the HMMP is highly dependent on the determination of compensatory mitigation lands, the selection of a qualified conservation



easement holder, and the need for and extent of any possible restoration enhancement lands. As such the HMMP would be developed in concert with the identification of compensatory mitigation lands under the review of the County, CDFW and USFWS as applicable. Because of the time involved and the integration of various organizations (including the applicant, the County, the resource agencies and potential conservation easement holders), it is standard practice to have compensatory mitigation land acquisition conducted concurrently with project activity, and to tie the completion of compensatory mitigation requirements to final project permit clearance. By requiring compensatory mitigation to be completed in advance of final project permit clearance, this allows the applicant and resource agencies sufficient time to properly identify and evaluate appropriate conservation lands, and ensures that this mitigation will be completed prior to the project being allowed to go on-line.

Response 12.A.53

The commenter states that the DEIR refers to Mitigation Measure B-1(b) for the management and monitoring of compensatory mitigation requirements; however, Mitigation Measure B-1(b) “does not include any specific requirements for managing and monitoring.”

Mitigation Measure B-1(b) lays out the minimum criteria to be incorporated into a full HMMP for compensatory mitigation lands. The HMMP identifies 10 elements that must be included in the plan, including specifics of maintenance and management tasks, funding, monitoring criteria for each element for which habitat is offered as compensatory mitigation, and a contingency plan for all elements that are not successful within designated time frames. The HMMP must be approved by the County prior to implementation, and the County will verify the plan is implemented.

Response 12.A.54

The commenter disputes the methodology and conclusions for mitigating impacts to CRPR List 4 plant species. According to CNPS, few, if any, CRPR 4 species are eligible for state listing, and generally cannot be called rare from a statewide perspective, but may be locally rare. CNPS states that consideration of CRPR species during preparation of CEQA documents is particularly appropriate for “The type locality of a California Rare Plant Rank 4 plant; Populations at the periphery of a species' range; Areas where the taxon is especially uncommon; Areas where the taxon has sustained heavy losses, or Populations exhibiting unusual morphology or occurring on unusual substrates (CNPS, 2014).” The 30 percent threshold was selected to ensure that project impacts to CRPR 4 species do not result in heavy losses locally. In the EIR, the regional context data for special status plants was evaluated, but the impact analysis considered the direct impact of the project, not just the percentage of regional population affected. Consideration of regional context is consistent with CDFW guidelines for assessing impacts to special status plant species. The regional context provides important data in support of the use of offsite compensation through protection of existing rare plant populations as a feasible means of mitigation. It also supports the analysis that the project would directly impact many individuals of these special status species, but would not remove all individuals of these species from the region. All CRPR 4 species reported from the BSA are present outside the project site, and all but one species, Elegant buckwheat (*Eriogonum elegans*) were also documented in the vicinity but outside the BSA, therefore there is no evidence to suggest these species are restricted to the project footprint. Rare plant occurrences within the vicinity but outside the BSA were considered to evaluate numbers identified on the project site in the context of local distribution and abundance.



Although regional population estimates are an important consideration during impact assessment, impact thresholds above which mitigation is required are based on project impacts to the estimated populations within the BSA rather than regional population estimates. CDFW states that impact discussion should consider the statewide and regional context for each species, but does not indicate that impact determinations should be based on the percentage of a regional population that is affected by a project. Calculating impacts as a percentage of the regional abundance would not be appropriate because evidence is not available that documents the connection between populations within the BSA and regional populations. This evidence would need to include documentation of minimum viable population size, distance at which genetic exchange occurs between subpopulations in the region, and evidence that mitigation for impacts above a regional threshold would be sufficient to avoid imperiling subpopulations within the region. For many species, minimum viable regional population size is unknown and consequently cannot be found in peer-reviewed literature. Accordingly, determination of a percentage of the regional population below which impacts would not affect long term viability of each species locally is not feasible due to lack of sufficient data. Impact thresholds above which mitigation is necessary to avoid imperiling local populations of these species are therefore based on BSA population estimates.

Several commenters noted that language identifying impact thresholds was lacking from the DEIR, and language clarifying the impact analysis was added. This clarification was not intended to indicate a change in the analysis. A brief summary of California Rare Plant Ranks and analysis under CEQA was included in the DEIR; an expanded explanation has been added to the Special Status Plants subsection of Impact B-1 to provide further clarity, as follows (see also responses 3.5, 12.A.45, 12.A.60, and 12.A.61 regarding special status plant impact thresholds and mitigation ratios).

Thresholds

CDFW standards state that species ranked 1A, 1B, 2A, and 2B may meet definitions of rare or endangered under CEQA Sections 15380 (b) and (d); (CDFW 2014). By CNPS standards, the plants of CRPR Ranks 1A, 1B, 2A and 2B meet the definitions of Sections 2062 and 2067 (CESA) of the California Fish and Game Code, and are eligible for state listing (CNPS 2014).

According to CDFW,

“In general, CNPS List 3 plants (plants about which more information is needed) and List 4 plants (plants of limited distribution) may not warrant consideration under CEQA §15380. These plants may be included on special status plant lists such as those developed by counties where they would be addressed under CEQA §15380... Factors such as regional rarity vs. statewide rarity should be considered in determining whether cumulative impacts to a List 4 plant are significant even if individual project impacts are not.”

CRPR 1B plant species meet CEQA Section 15380 criteria as rare, and impacts would be significant without compensatory mitigation. Mitigation is required for all impacts over 10 percent of the population within the BSA to avoid impacts that could cause the regional population of any of these species to drop below self-sustaining levels, threaten to eliminate any plant community of which the species was a key part; or substantially reduce the number of occurrences or individuals or restrict the range of that species.



Due to the unusual large number of individuals and extent of CRPR 4 plant species in the vicinity compared with other records for these species, these populations are considered unique, with implications for the status of this species throughout its range; these populations would thus meet criteria for analysis as rare under CEQA Section 15380. Due to the regional significance of these populations of CRPR 4 plant species, impacts to CRPR List 4 plant species would be considered significant and require compensatory mitigation if more than 30% of the population occurring within the BSA and/or known populations of the species within a 5-mile radius of the BSA (where such populations are known), would be affected. In addition, the impact may would be considered significant if less than 30% of the population or within the BSA would be affected but where the population exhibits unusual morphology, occurs on unusual substrates for that species, or if loss related to the project could reduce the species' range, as determined by a qualified botanist familiar with the population present in the impact area and the rare flora of the Central Coast Ranges.

Mitigation Measures B-1(a) through B-1(e) list compensatory mitigation for special status plant species in the summary table, and Mitigation Measure B-1(e) has been clarified as follows:

B-1(e) Compensatory Mitigation for Special Status Plant Species. Where direct impacts to special status plants cannot be avoided through redesign of project elements, To compensate for significant impacts on special status plant species, offsite habitat occupied by the affected species shall be preserved and managed in perpetuity at a minimum 1:1 mitigation ratio (at least one plant preserved for each plant affected, and also at least one occupied acres preserved for each occupied acres affected) up to the significance threshold, that is more than 10% of the BSA population for CRPR 1B species, or more than 30% of the BSA population for CRPR 4 species. (e.g., For example, for a CRP-ranked 1B species where 15% of the known BSA population within 5 miles of the project impact area is impacted, mitigation must be provided at 1:1 equivalent of 5% of that regional BSA population; for CRPR 4 species, all impacts beyond 30 percent of the known BSA population must be mitigated at a 1:1 ratio). Areas proposed for preservation and serving as compensatory mitigation for special status plant impacts must contain verified extant populations of the special status plant species, of similar size and quality, and equal or greater density to the populations that would be impacted by the project, and should be consistent with the USFWS Recovery Plan for Upland Species of the San Joaquin Valley (USFWS 1998) if possible.

Preservation of offsite local populations within 5 miles of the project site would ensure that although the project could impact many individuals of CRPR 1B and 4 species, the project would not result in extirpation of these species from the region, and conserved populations would benefit long-term survival of these species statewide.



Locations of suitable mitigation sites must be identified within 5 miles of the BSA, and a technical report must be submitted demonstrating that the same species, approximate number of individuals, and same acreage of suitable habitat as would be impacted would be preserved. Suitable sites must have similar associate species, soils, and lack extensive populations of noxious weeds. Because populations of annual plants can fluctuate from year to year and are difficult to census over large areas, estimated population of the target species at mitigation sites may vary by up to 10 percent from impacted population estimates, provided calculations are based on population estimates conducted following 2009 CDFW-approved botanical survey protocol. The technical report must identify a species-by-species accounting of individuals and acreage impacted; locations, acreages, and individuals at each proposed mitigation site; botanical survey dates, personnel, mapping and population estimation techniques used to demonstrate site suitability as mitigation for special status plant impacts.

If possible, compensatory mitigation areas shall be located as close to the project site as feasible, but must also be protected from Project-related ground disturbance by a species- and impact-specific buffer developed by a qualified plant ecologist familiar with the project actions and with the habitats and plant species present on the project site. This buffer must take into account the following potential indirect impacts that could occur to the preserved populations:

1. potential shading, or alteration of existing light regimes, by nearby infrastructure;
2. potential for alteration of drainage patterns that could affect the hydrology of habitat occupied by the preserved population;
3. potential for overspray of herbicides used during site vegetation management; *and,*
4. potential for ongoing dust deposition on the preserved population, sufficient to coat foliage or reproductive structures and substantially interfere with photosynthesis or pollination.

Compensatory mitigation areas for special status plants can be combined with mitigation for multiple species as outlined in measure B-1(a) for nesting mitigation. Compensatory mitigation for special status plants shall be consistent with the conditions outlined in the above measure B-1(a), and be managed and monitored under the HMMP as outlined in the above measure B-1(b).

If sufficient acreage of suitable quality as previously discussed cannot be protected to conserve CRPR 1B species at a minimum one to one ratio for individuals and acreage impacted, and to conserve CRPR 4 species impacted beyond the 30% threshold, the deficit between available suitable mitigation sites and required mitigation numbers



and acreage shall be made up through active restoration. A special status plant mitigation restoration plan will be prepared, if needed, to identify suitable locations, methods, and success criteria for special status plant mitigation through direct seeding and restoration of suitable unoccupied habitat. The plan must at a minimum require replacement through collection of seed and topsoil from impact sites, a monitoring and management component that outlines weed management and monitoring techniques, and success criteria that require successful establishment of the target species over the acreage and numbers impacted plants within five years.

If compensatory mitigation for special status plants will involve restoration, then the applicant shall scrape and collect topsoil and/or duff from impact areas that support rare plants, to be used in compensatory mitigation site restoration. Seed may also be collected from impact areas. Before project-related activities commence and once on-site special-status plants go to seed, areas of proposed site grading where special status plants have been recorded shall be scraped to collect the seeds and topsoil/duff for redistribution on compensatory lands. A qualified botanist shall determine the most suitable locations for the topsoil/duff to be distributed on the compensatory lands, which may include but not be limited to creation of "wetland" depressions for those plants associated with wetlands, seeps, vernal pools or other mesic sites with clay soils, and determining correct soil types or topographic aspect to support each plant species. Scraping will not be conducted for soils in vernal pools that could contain federally listed invertebrates unless permitted to do so by the United States Fish and Wildlife Service (USFWS).

Sites used for restoration can be located on suitable habitat as outlined in measure B-1(a) for nested mitigation. Compensatory mitigation for special status plants shall be consistent with the conditions outlined in the above measure B-1(a), and be managed and monitored under the HMMP as outlined in the above measure B-1(b).

Mitigation Timing: A technical report as described above that identifies ~~Identification~~ of the total number of plants and acreage impacted and required for mitigation, sites identified for mitigation through conservation, and the special status plant restoration plan, if applicable, must be submitted to the eCounty prior to the issuance of grading permits or prior to the issuance of the grading permit for each phase of the project, should the project be phased. The applicant shall then obtain County approval of the restoration plan, if applicable, and the location of mitigation lands, the holder of conservation easements, and the restrictions contained in the easement(s) created for the permanent protection of these lands. All other timing shall be consistent with measure B-1(a).



Response 12.A.55

The commenter disputes the methodology and conclusions for mitigating impacts to special status plants through the proposed nested mitigation. The complete 2014 Special Status Plant Survey Report (HTH 2014h; FEIR Appendix E.15) provides additional information on the presence of sizable populations of target special status plant species that are present within the BSA outside the project footprint, and on surrounding lands outside the BSA. This report provides evidence that mitigation via conservation of local land supporting target species of rare plants is feasible. Furthermore, it is a required under Mitigation Measure B-1(e) that mitigation sites must consist of verified extant populations of the species for which impacts are being mitigated, necessarily ensuring that microhabitat conditions would be present to support the specific species of concern.

Response 12.A.56

The commenter disputes the methodology and conclusions for evaluating impacts to special status plants along the utility corridor. The adequacy of botanical surveys is specifically addressed in master response 2 (and addressed the adequacy of biological surveys in general in master response 1), and response 13.5. Specifically in regard to the utility corridor, this portion of the project was included after some of the initial surveys had been completed, and represents a relatively small addition to the project, with a comparatively small impact footprint. As such, the utility corridor was evaluated for its potential to support special status plants and animals based on a habitat assessment, reconnaissance surveys and other surveys that were ongoing when the utility corridor was added to the overall project design. All special status plants and animals that have potential to occur in this portion of the project have been identified, additional ongoing and preconstruction surveys will further evaluate presence status for species on site, and suitable mitigation has been incorporated for all species that may be impacted within the utility corridor, if it is determined that they are present. The results of the 2014 Special Status Plant Survey (HTH 2014h; FEIR Appendix E.15) do not provide any new or additional information that contradicts the results of the previous analysis or conclusions of the DEIR.

Response 12.A.57

The commenter disputes the methodology and conclusions special status plants and the identified significant thresholds. Please refer to responses 13.4 and 13.5 for discussions of the thresholds for CRPR 1B species.

Response 12.A.58

The commenter raises questions relating to the calculation of rare plant population sizes in the region. The 2014 Special Status Plant Survey (HTH 2014h; FEIR Appendix E.15) that has now been completed (see response 12.12) provides detailed estimates of population size using extrapolation from census along transect lines both within the BSA and in surrounding lands. Exact population size within five miles, particularly for annual plants, is not typically feasible. Known populations within five miles of the project impact area were evaluated where data exists to consider project impacts on special status plants within the regional context of other nearby populations. Impact thresholds for special status plants are based on impacts to known population within the BSA; as has been clarified in the EIR. See response 12.A.54 for clarification of impact thresholds.



Existing data on CRPR 4 plant occurrences within five miles of the BSA, with the understanding that access limitations prevented complete survey of all lands, provides context for the regional status of these plants and feasibility of mitigation through offsite conservation.

Response 12.A.59

The commenter states a concern regarding significance thresholds for CRPR Rank 1 species.

Clarifications were made to the significance thresholds and mitigation strategy for CRPR species in response to several comments. Please refer to response 12.A.45 for revised language clarifying significance thresholds, and responses 3.5, 12.A.60, and 12.A.61 regarding for additional discussion of CRPR impacts and mitigation.

Response 12.A.60

The commenter questions the rationale behind significance thresholds for rare plants. With the clarification noted in responses 3.5 and 12.A.45, all direct impacts to CRPR 1B plant species beyond 10 percent of the population and acreage reported in the BSA would require mitigation. Impacts below 10 percent of the BSA population would not be expected to substantially reduce the habitat for that species; cause the regional population to drop below self-sustaining levels; threaten to eliminate any plant community of which the species was a part; or substantially reduce the number or restrict the range of that species. Though preservation of occupied habitat does not necessarily “make” additional plants to offset the plants lost due to impacts, this is not required under CEQA as long as the impacts, as mitigated, are not expected to substantially reduce the habitat for a rare species; cause a population of a rare species to drop below self-sustaining levels; threaten to eliminate a plant community; or substantially reduce the number or restrict the range of a rare species. Mitigation for impacts to CRPR 4 species is based on a 30 percent threshold. A higher threshold is considered for CRPR list 4 species because these species are generally not considered rare statewide. Therefore, the impact threshold in the case of CRPR list 4 species is based on a consideration of impacts that would specifically result in locally heavy losses that could impact CRPR 4 plant regional populations.

Response 12.A.61

The commenter argues that the compensatory mitigation ratio for special status plant species should be increased to 3:1. The commenter disagrees with the compensatory mitigation ratio for special status plant species. The compensatory mitigation for non-listed special status plant species purpose is to ensure impacts at the regional population-level are less than significant. The commenter doesn't provide any rationale for why the proposed increase of the mitigation ratio to 3:1 would be appropriate. By protecting occupied habitat of similar quality and equivalent acreage to impacts within the BSA, and providing for restoration via direct seeding in the event that sufficient acreage is not identified within the region, the mitigation strategy provides for conservation of self-sustaining populations, thus protecting regional occurrences of these special status plants.



Response 12.A.62

The commenter states the opinion that all sensitive communities that would be permanently impacted by the project should be incorporated into Mitigation Measure B-2(a), and recommends specific mitigation ratios for certain plant species.

Please refer to response 12.A.11 regarding the absence of Yerba mansa alliance, Alkali heath alliance, Valley Oak Woodland from within the BSA, and absence of chairmaker's bulrush alliance within the SFGA, utility corridor, and access road. Since these alliances would not be impacted, no mitigation is necessary. Please refer to response 12.A.11 for a discussion of impacts to Willow-Cottonwood Riparian Woodland. No impacts to riparian canopy would occur. Impact acreage reported for this habitat type is a function of the spatial analysis process, in which slivers at the edges of the mapped unit are within the impact boundary, but all riparian canopy would be completely avoided.

Response 12.A.63

The commenter disagrees with the proposed methods and mitigation ratios for mitigating impacts to wildflower fields. Please refer to response 13.6 for discussion of wildflower mitigation ratios and selection of mitigation sites.

Response 12.A.64

The commenter summarizes avoidance and mitigation efforts for burrowing owl presented in Mitigation Measure B-1(m) of the DEIR, and contends the approach for maintenance and monitoring of mitigation activity is insufficient. Please refer to response 12.36.

Response 12.A.65

The commenter raises concerns about the process for identifying relocation sites and the potential lack of relocation sites for CTS and CRLF. The county discussed CTS and CRLF relocation in response 12.35, and the commenter is here referred to that response..

Response 12.A.66

The commenter remarks on a typographical error in Mitigation Measure B-1(bb) that incorrectly refers to Mitigation Measure B-1(p) rather than B-1(w). As noted in response 12.35, this clerical error has been corrected.

Response 12.A.67

The commenter disagrees with the 25-year flood design standard required by Mitigation Measure B-2(f) in Section 4.4, *Biological Resources*. The commenter notes that this is inconsistent with the lifespan of the project (30 to 40 years). It should be noted that a 25-year flood refers to flood event that would have a statistical probability of occurring once every 25 years, which is unrelated to the lifespan of the project.



The commenter further suggests that this design standard is not sufficient to protect water quality, particularly during more severe 100-year storm events. Water quality impacts are addressed in Impact HYD-1 and flooding impacts are addressed in Impacts HYD-4 and HYD-5 in Section 4.9, *Hydrology and Water Quality*. Refer to responses 16.121 for further discussion regarding revisions made to Impacts HYD-4 and HYD-5. As noted therein, the project would be required to implement APM-11, which requires the preparation of a design level drainage study that contains measures that ensure that project facilities are not placed in areas where they would be subject to significant flood or erosion hazards. These measures, as outlined in Section 4.9, generally correspond to a 100-year storm event rather than a 25-year storm event. In addition, as noted in Impact HYD-1, compliance with existing federal, state, and local requirements would ensure that water quality impacts from erosion and sedimentation are less than significant.

Response 12.A.68

The commenter disputes the efficacy of 100 to 200 foot avoidance buffers for SJKF dens, with up to 500 foot buffers around natal dens during construction. Buffers are not designed to completely avoid home range areas; rather, buffers are designed to ensure potentially disruptive construction activity and noise does not occur sufficiently close to a natal den that the den become abandoned during pupping season. As addressed in response 12.37, these buffers are standard avoidance buffers for SJKF and are consistent with CDFW and USFWS guidance.

Response 12.A.69

The commenter suggests that Mitigation Measure B-1(r) for preconstruction nesting bird surveys is insufficient in detail. Specifics for conducting nesting bird surveys vary depending on the species and habitat present on a project site. While no specific guidelines are available for conducting nesting bird surveys, avian biologists can only be considered qualified if they are familiar with appropriate methodology for conducting the surveys required of them. The mitigation requires that qualified professionals must conduct appropriate surveys, and provides information on what shall be done in the case where active nests are identified during preconstruction surveys. Mitigation Measure B-1(r) includes reasonable and appropriate language for requiring qualified biologist to conduct preconstruction nesting bird surveys, and then specifies procedure when and if active nests are recorded during those surveys.

Response 12.A.70

The commenter disagrees with the proposed timing of preconstruction surveys for nesting birds. The 30-day window for preconstruction nesting bird surveys was intended to be specific for nesting raptors. The exclusion of a 14-day window for non-raptor nesting bird surveys was a clerical error and Mitigation Measure B-1(r) of the DER has been revised as follows:

Not ~~less-more~~-than 30 days prior to initiation of construction activities (incl. mobilization, staging and ESA fence installation) during the breeding season (1 February to 15 September), a qualified biologist shall conduct preconstruction surveys for nesting raptors. ~~and~~ Not more-than 14 days prior to initiation of construction activities (incl. mobilization, staging and ESA fence installation) during the breeding season (1 February to 15 September), a qualified biologist shall conduct preconstruction surveys for nesting MBTA/state regulated birds.



Response 12.B.1

The commenter summarizes the project description and indicates that their comments focus on hazards and hazardous waste, and air quality. The comment is noted. Refer to responses 12.B.2 through 12.B.6 for responses to substantive comments pertaining to these issues.

Response 12.B.2

The commenter notes that the hazards and hazardous waste section of the DEIR is not supported by a Phase I Environmental Site Assessment (ESA). The commenter then generally describes the purpose and content of a Phase I ESA, but does not provide evidence to suggest that the DEIR analysis is inadequate.

As noted in Section 4.8.2(a) (Methodology and Significance Thresholds) of Section 4.8, *Hazards and Hazardous Materials*, the assessment of impacts is based on: 1) review of site information and conditions; 2) review of pesticide application records; 3) review of state maintained databases of hazardous materials; 4) review of infectious disease information; and 5) review of the Monterey County 2010 General Plan, the Monterey County Code, and other County information regarding hazards and hazardous materials issues. The presence of hazardous materials sites is addressed in Section 4.14, *Effects Found not to be Significant*, of the DEIR. As noted therein, a review of the Envirostor Hazardous Facility Database revealed that the proposed project site is not listed on the Cortese List, and furthermore that there are no known environmental sites of concern located within one mile of the project site. Therefore, the project site poses no risk of creating a hazard to personnel as a result of being located on a known site contaminated with hazardous materials. The project site and adjacent properties are not listed on the Cortese List of hazardous material sites compiled pursuant to Government Code Section 65963.6. The DEIR hazardous materials analysis is adequate without the support of a Phase I ESA.

It should also be noted that the applicant team had a Phase I ESA prepared in February 2014 and provided the report to the County in October 2014, after circulation of the DEIR. A review of the Phase I ESA, which is included in the FEIR as Appendix N, confirms that the site does not contain any Recognized Environmental Conditions (RECs). The Phase I report indicates that three petroleum wells have been drilled on the site; however, all three wells have been plugged and abandoned. Therefore, these wells would not impact the site in a manner that would result in the designation of an REC.

Response 12.B.3

The commenter identifies two abandoned wells on the project site, and states that the presence of these wells is a significant impact. Refer to response 12.B.2.

Response 12.B.4

The commenter argues that additional information is needed to support the conclusion that no residual pesticides or herbicides are anticipated to be found in the soil and/or groundwater. As noted under Impact HAZ-1 in Section 4.8, *Hazards and Hazardous Materials*, according to the Monterey County Agricultural Commissioner, no pesticide or herbicide use is reported on the



project site or adjacent parcels (Monterey County Agricultural Commissioner, 2013). In addition, project-related improvements within the eastern portion of the proposed utility corridor (where irrigated crop production occurs) would be limited to the installation of temporary and narrow water infrastructure. Based on historical and current land use on the project site, no residual pesticides, herbicides, or other contaminants are anticipated to be found in the soil and/or groundwater. The likelihood that construction workers, operational staff, and/or adjacent sensitive receptors could be exposed to substantial quantities of residual agricultural chemicals in on-site soils is remote.

The commenter additionally suggests that the DEIR offers no conclusions by a qualified professional. It should be clarified that the analysis in the DEIR was overseen by a licensed professional geologist and a qualified professional authorized to prepare and sign Phase I ESAs. To clarify this, the following additions have been provided in Section 8.0, *References and Preparers*:

In addition, as noted in response 12.B.2, a Phase I ESA was prepared for the project site, and is included as Appendix N to the FEIR. This report was prepared by Ken Taylor of KTA Associates, Inc., who is authorized to prepare and sign Phase I ESAs.

Response 12.B.5

The commenter notes that construction emissions of NO_x and PM₁₀ would exceed MBUAPCD thresholds of significance, resulting in a significant and unavoidable impact (Impact AQ-2), and that the DEIR states that “No other feasible measures are available that would further reduce construction emissions.” The commenter recommends additional mitigation for NO_x and PM₁₀, based on other recent CEQA documents for renewable energy projects, including haul trucks that meet the U.S. EPA 2007 model year NO_x emission requirements, construction equipment that meet Tier 3 or Tier 4 emissions standards, a prohibition against visible dust leaving the site during construction, sampling to ensure that PM₁₀ levels do not exceed 50 µg/m³, preventing track-out soil from construction equipment more than 25 feet onto paved roads, and applying water once per hour to unpaved roads during high wind conditions.

Construction emissions, impacts, and mitigation are described in Impacts AQ-2 and AQ-9 of the DEIR. These impact discussions incorporate the maximum feasible mitigation measures recommended by MBUAPCD and SLOAPCD. Revisions to strengthen the applicable Mitigation Measures AQ-2(a), AQ-2(b), and AQ-2(c) are discussed in detail in response 4.2, response 4.13, response 9.2, response 16.22, response 16.23, and response 16.24. Mitigation Measures AQ-2(a), AQ-2(b), AQ-2(c), and AQ-9, including revisions to the DEIR made herein in response to other public comments, incorporate several of the recommendations made by the commenter, including Tier 3 construction equipment, limitations on visible dust emissions, Best Available Control Technology (BACT) to reduce ozone precursor emissions from construction equipment, dust suppression measures including watering, and provisions to minimize track-out soil. The required mitigation is consistent with the requirements and recommendations of both MBUAPCD and SLOAPCD, and would reduce the project’s anticipated short-term construction emissions to the maximum extent feasible.



Response 12.B.6

The commenter states that Section 4.3, *Air Quality*, of the DEIR and supplementary air quality appendices (Appendix C.1 and Appendix C.2) do not adequately evaluate the potential for significant air quality impacts resulting from diesel particulate matter (diesel PM) emissions generated during project construction. Specifically, the commenter states that the DEIR does not disclose total construction-related emissions of diesel PM. The DEIR discloses total PM₁₀ emissions (which include diesel PM emissions) within the NCCAB in Table 4.3-5 under Impact AQ-2, and total diesel PM emissions within the SCAB in Table 4.3-7 under Impact AQ-9. Together, the diesel PM within the NCCAB and SCAB comprise the project's total diesel PM emissions; however, they are appropriately disclosed under separate impact discussions, as emissions within each basin are analyzed according to the methodologies and thresholds of significance of the corresponding air district. Furthermore, total project diesel PM emissions are disclosed in the CalEEMod output files in Appendix C.1 to the DEIR. The commenter correctly notes that the DEIR indicates the project would result in significant impacts associated with diesel PM and PM₁₀, as shown in Impact AQ-2 and Impact AQ-9. It should be noted that both of these impacts incorporate the maximum feasible mitigation measures recommended by MBUAPCD and SLOAPCD. Revisions to strengthen the applicable Mitigation Measures AQ-2(a), AQ-2(b), and AQ-2(c) are discussed in detail in response 4.2, response 4.13, response 9.2, response 16.22, response 16.23, and response 16.24.

The commenter notes that the analysis used in the DEIR utilized CalEEMod to characterize emissions of air pollutants associated with project construction and operation, including diesel PM. The commenter goes on to provide an estimate of the excess cancer risk for the residential receptor located closest to the project site's northern boundary based on the AERSCREEN dispersion modeling tool and Formula EQ 5.4.1 A from the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA) *Air Toxics Hot Spots Program Risk Assessment Guidelines* (August, 2003), which is intended to provide a screening-level analysis potential health risks associated with diesel PM emissions during project construction. However, the commenter's analysis substantially overestimates potential health risks in several ways:

- The commenter's analysis is based on total exhaust diesel PM of 2.22 tons, which includes off-site emissions that would not contribute to health risks at the residential receptors north of the project site. Total on-site diesel emissions are estimated at a maximum of 2.0 tons/year, approximately 10 percent lower than used in the commenter's analysis.
- The emission rate calculated by the commenter is incorrect, since the 2.22 tons is to occur over a two year period, not one year as assumed in the comment. If using a two-year emission period for the duration period for the health risk equations, the emission rate should be half of that used by the commenter. Since the AERSCREEN concentration results are directly proportional to the emission rate (all other parameters remaining unchanged); this would result in the commenter calculated health risk being less than 10 in one million, and therefore not significant. If using the highest emissions of any one year (1.84 tons), then the emission rate would be reduced by more than 17%.
- The AERSCREEN concentration results are based on the geographical proximity of the area emission source to the receptor. The commenter's analysis assumes that the location of the emission source would be constant during the 12 to 24 month construction period. However, actual construction activity occurring within one mile of the residential receptors north of the project site would only be during a relatively short duration of the overall



construction period (approximately 10.3 percent of the solar generating facility area [279 out of 2,790 acres] is within one mile of the nearest residential receptor). A substantial reduction in pollutant concentration occurs as distance increases from the actual emission source.

- As noted by the commenter, actual construction emissions would be more heavily concentrated within the areas of greatest disturbance, such as the substations and switching station, which are located over two miles from the residential receptors north of the project site, rather than the solar modules, inverters, and collection system, which are the only project components that would be constructed within two miles of the residential receptors.
- The commenter's analysis assumes that a person's exposure to on-site diesel PM would occur between the third trimester of pregnancy and two years of age, and applies the highest age sensitivity multiplier. It should be noted that using either of the lower age sensitivity multipliers for children between two and 15 years of age, or for adults, would not result in an estimated cancer risk in excess of one in one million (even with all of the other conservative assumptions made herein), which would not constitute a significant impact.

The DEIR addresses the potential impact associated with health risks from diesel PM during construction. In Impact AQ-4, the DEIR states that:

"While the project could potentially expose sensitive receptors to temporary health hazards associated with TACs due to the operation of construction equipment, there are only three residences located within a mile of the site, two north and up wind of the project site, and one approximately 4,000 feet east of the project site. These receptors are not located in an area that would be subject to on-going construction-related activities. Receptors would potentially be exposed to temporary emissions during the construction and installation of PV modules and other associated improvements along the project's northern boundary. The distance of construction related activities relative to the location of the two sensitive receptors will vary depending on the location of construction-related activities in relationship to these receptors; the majority of construction-related activities would not occur within close proximity to these receptors. Moreover, concentrations of mobile source diesel PM emissions are typically reduced by 70% at a distance of approximately 500 feet (ARB, 2005). Therefore, the health risk associated with construction emissions would be less than significant."

It should be noted that, in comment 4.3, above, the commenter provides a wind rose from Parkfield (2008-2010), which shows prevailing daytime winds during construction work hours from the southeast, which indicates that these residences would be located downwind of construction activity during the daytime hours when project construction is primarily expected to occur. As noted in response 4.3, the DEIR states that the prevailing winds of the Paso Robles area are westerly to northwesterly (meaning that winds generally blow west to east and northwest to southeast; National Oceanic and Atmospheric Administration, 2009), but notes that seasonal and local topographic conditions may alter the wind directionality.

In addition, the California Air Resources Board's *Air Quality and Land Use Handbook* (April 2005), which is commonly utilized to provide guidance when determining whether a health risk



assessment should be prepared, does not include short-term construction activity among the list of sources that may be incompatible with nearby sensitive land uses (refer to Tables 1-1 and 1-2 from the *Air Quality and Land Use Handbook*).

As a result of this response, the following references have been added to Section 8.0, *References*:

California Air Resources Board, Air Quality and Land Use Handbook: A Community Health Perspective, April 2005. Available: <http://www.arb.ca.gov/ch/handbook.pdf>

Office of Environmental Health Hazard Assessment. Air Toxics Hot Spots Program Risk Assessment Guidelines: The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. August 2003. Available: http://oehha.ca.gov/air/hot_spots/pdf/HRAguidefinal.pdf

Response 12.C.1

The commenter indicates the portions of the DEIR they reviewed, and highlights their qualifications. The comment is noted.

Response 12.C.2

The commenter summarizes the findings of their review. Refer to responses 12.C.4 through 12.C.8 for responses to specific comments.

Response 12.C.3

The commenter summarizes the hydrological analysis for the proposed project. The comment is noted.

Response 12.C.4

The commenter claims that the hydrological modeling estimate of “n” and related parameters could cause the peak flow rate to be underestimated.

To verify the validity of the flows presented in the DEIR *Preliminary Drainage Report* (RBF 2013), the Wallace Group prepared (and Rincon Consultants, Inc. peer reviewed) a comparative analysis of sample watersheds, with independently selected hydrologic parameters (Campbell, 2014; refer to Appendix Q to the FEIR). This comparative analysis – which considers all hydrologic parameters in combination, rather than the n-value in isolation – shows that the flows determined in the DEIR *Preliminary Drainage Report* (RBF 2013) are conservative.

It is also important to note that in the DEIR *Preliminary Drainage Report* peak runoff was calculated separately for the off-site watersheds (using HEC-HMS) and the project area and adjacent land (using FLO-2D). Approximately half of the modeled flow was calculated using HEC-HMS, while the other half was modeled as rainfall over the FLO-2D study area. The comments to n-values do not apply to the FLO-2D runoff rates, as the n-value is not a factor in peak flow calculated through the FLO-2D program.



The overall conclusions regarding flows are consistent with Wallace Group's field observations and are appropriate for the purposes of evaluating potential erosion related effects for the purposes of CEQA review. As described in the DEIR, additional modeling will be performed as part of a design-level drainage analysis, which would include further modeling based on project-level detail. The DEIR and *Preliminary Drainage Report* (RBF 2013) conservatively estimated potential flow rates and associated impacts for the purposes of identifying recommended mitigation measures to be incorporated into final design.

In response to this comment, the following has been added to Section 8.0, *References*:

Campbell, Craig, Wallace Group. California Flats Solar Project Supplemental Hydrology Calculations. October 10, 2014.

Response 12.C.5

The commenter states that the choice of initial abstraction for on-site runoff may significantly underestimate flood flow rates. Similar to the n-value, as discussed in response 12.C.4 above, this variable should not be considered in isolation. Also, note that initial abstraction (the higher infiltration of initial rainfall) primarily affects runoff volume, and has a much smaller effect on the peak flowrate that occurs later in storm events. The effects of variations in initial abstraction are insignificant to peak flowrate. Refer also to response 12.C.5 and Appendix Q.

Response 12.C.6

The commenter states that erosion within Area 1 was underestimated. As described in response to comment 12.C.5, the DEIR *Preliminary Drainage Report* (RBF, 2013) channel n-values are not overestimated; the report used different n-values for channels than for sheet flow areas and the discussion in 12.C.4 is not applicable.

Response 12.C.7

The commenter states that erosion of channels within Area 1 from off-site runoff could endanger the solar arrays.

In accordance with APM-11, no modules (or their support posts) shall be placed in areas where the product of the flow depth and flow velocity is greater than 9 feet per second, which corresponds to a hazard level 3, as defined in the *Preliminary Drainage Report* (RBF 2013). This will ensure that module support posts are not located in areas where storm flows are deeper and faster. Locating posts outside of the deeper-faster flow zones avoids significant erosion impacts associated with the post installation.

The maximum pier scour to be expected ranges from 4 inches to 24 inches (refer to Appendix Q). This level would be reached incrementally over several very large storm events. In most locations of the project site, the maximum pier scour would be 6 inches or less. Pier scour of this magnitude is localized, and does not create significant region wide impacts.



It is also important to note that the site is comprised primarily of clay soils. Cohesive (clay) soils erode at a much slower rate compared to non-cohesive (sand) soils. The maximum predicted scour may not be reached during a flood or even over the life of the project (Campbell, 2014; refer to Appendix Q).

Response 12.C.8

The commenter claims that recommendations in the drainage analysis may be inadequate to mitigate the impact, given their previous comments. As noted in responses 12.C.4 through 12.C.7, flow velocities and potential erosion have not been underestimated, as suggested by the commenter. In addition, as noted in response 12.44, MCWRA disagrees with the contention that the calculations were inaccurate, and concluded that the hydraulic analysis developed for the DEIR is acceptable for environmental review and design-level purposes (Chardavoyne, October 2, 2014).

Response 12.D.1

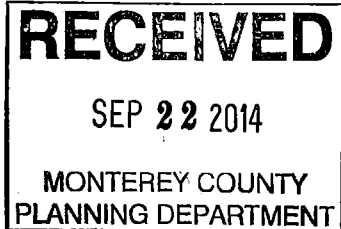
The commenter provides a study of avian mortality at three solar energy facilities in southern California. The comment does not specifically address the DEIR. Therefore, a specific response to this comment is not feasible. The County of Monterey did, however, review the contents of this study in light of other public comments received on the DEIR related to potential avian mortality associated with solar energy facilities. While an individual response to this comment is not warranted under CEQA, detailed responses to comments related to potential impacts associated with avian mortality are addressed elsewhere in the FEIR. Refer also to response 16.65 for a discussion of collision mortality from birds mistaking solar panels for open sky or water, and response 16.112 for a discussion of radiant heat from solar panels.



Letter 13

Robert Hale
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22 Sept 2014

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RE: California Flats Solar Project DEIR, PLN120294

On behalf of the Monterey Bay Chapter of the California Native Plant Society, I have the following comments regarding the DEIR for the California Flats Solar Project. In general the DEIR does not have adequate biological surveys to determine if mitigations are achievable and also lacks adequate mitigations for a project which has such a large impact in an area that contains significant populations of several special status plant species. An alternative location on more previously disturbed lands would be the superior alternative.

- 1) Inadequate Biological Surveys - With most of the special status plants being annual plants, then a survey for only one year is not adequate to capture the relative abundances and extent of the expression of the annual seed banks. Particularly when the year is the second year of a prolonged drought and where little rain fell after Jan 1 (1.77" jan-mar). While some species may have been abundant due to decreased competition, many others may have not germinated at all.

I request additional rare/sensitive plant surveys to include at least one year of above normal rainfall.

Surveys are incomplete for the regional context that was defined by sampling areas within 5 miles of BSA. Population estimates are provided, but no acreage for the special status plant species found. No acreage or identification of wildflower field communities is presented for the regional context outside of the BSA. Since mitigations require identification of populations/acreage in the BSA and regional context, it is critical that this information be presented in the DEIR in order to know if the mitigations are even feasible. The DEIR surveys are thus incomplete.

13.1

The BSA or biological study area also appears arbitrarily small and should include boundaries such as ridgetops and river channels.

- 2) Inadequate Mitigations – B-1(b) Habitat Mitigation and Monitoring

To ensure successful mitigation, the monitoring plan needs to assess the population numbers and habitat acreage for at least 5 years to ensure that targets for population and quality of replacement habitat for special status plants is actually met. Five years should allow for a wide enough variation of growing conditions to fully assess the seed bank/populations of

13.2

the species. If targets are not met then it will be required that additional lands be identified and conserved to meet the needed mitigation. 13.2

3) Inadequate Mitigations – B-1(c) Preconstruction Special Status Plant Surveys

Because of inadequate initial survey, it should be required that prior to construction the entire project site be resurveyed for special status plants to include a year with above normal rainfall. 13.3

4) Inadequate Mitigations – B-1(d) Special Status Plant Species Avoidance and Minimization

B-1(d) requires complete avoidance for listed species, of which none were noted. For sensitive plan speices the requirement is to avoid to the extent practicable. Given that two species, California macrophylla and Naveretia nigeliformis ssp radians, have population occurences of statewide exceptional numbers, avoidance must be required for populations of medium to high density or unusual numbers of all rare/sensitive plants. It is noted that Sections I and L of the project site have particularly high concentrations of special status plants – Priority must be given to strictly avoid impacts on medium to high quality/exceptional habitat for all special status species. For example the areas of Sections I, L that possess such unusual special status plant populations should be avoided by reconfiguring the solar array to avoid these areas. Lesser quality special status plants could still be mitigated. 13.4

5) Inadequate Mitigations – B-1(e) Compensatory Mitigations for Special Status Plant Species

B-1(e) requires mitigation at a 1:1 ratio for population numbers and acreage occupied up to a threshold significance. The DEIR does not define what the significance thresholds are for the noted special status plants. The example given is that is 15% of the known population within 5 miles is impacted then mitigation must be given 1:1 of 5% of that regional population. I can not understand what the mitigation will be in this case. The DEIR must provide 1) what is the required mitigation in numbers and habitat acreage for each species AND 2) it must provide evidence that such populations and acreage is available. Because neither of these is provided the DEIR must be reworked to fully document whether the impacts of the project can be mitigated. With annual species it will be very important to ensure seed bank potential is mitigated which includes quality (density of plants) and acreage combined. Because of the inherent variability with annual plants the mitigations, should be on order of a 3:1 replacement, especially for habitat acreage. 13.5

The DEIR should provice example for the 3 main special plants to include acreage and numbers impacted, and the corresponding numbers and acreage that can be protected. The three species are all CRP 1B - California macrophylla, Navaretia nigeliformis ssp radians and Calystegia collina ssp venusta - and had significant occurences. The population numbers for these on the project site appear to be significantly larger (several times larger) than the estimates for the numbers in the BSA and regional added together. How can this be a 1:1 mitigation?
There is no acreage presented for the regional area, so I don't know how the DEIR can conclude this mitigation is possible.

6) Inadequate Mitigations – B-2(a) Valley Needlegrass and Wildflower Habitat Mitigation

B-2(a) Requires a 1:1 mitigation for wildflower acreage and 2:1 for Needlegrass acreage impacted. The DEIR does not list any acreage of wildflower fields outside of the BSA. The DIER must provide some evidence and location of potential wildflower fields that would serve as mitigation sites. This mitigation can not be considered met, since there is no identification of possible mitigation sites. It is also important that identified sites have similar continuity and 13.6

quality as the impacted acreage. To ensure quality of the mitigation is met, a 3:1 ratio for both Needlegrass and wildflower habitats is required. | 13.6

7) Inadequate Mitigations – B-2(b) Habitat Restoration and Revegetation Plan |

Success would be best measured by monitoring for 5 years and to include at least 2 above normal rainfall years. | 13.7

8) Incomplete Alternative Analysis |

Section 7.1 lists alternative DOD sites of Fort Ord and Fort Hunter Liggett. I did not see any analysis of the Fort Hunter Liggett site at all in the DEIR. There was extensive discussion of Fort ord, but nothing for Hunter Liggett. Certainly, Fort Hunter Liggett would be inland and possess solar characters similar to the California Flats project site. Please provide some analysis. | 13.8

An alternative that would avoid areas of medium to high density special status plant species, such as removing sections I and L solar arrays would greatly reduce the mitigation needs for impacts to special status plant species.

Thank you for your consideration,

Robert Hale,
Conservation Chair, Monterey Bay Chapter California Native Plant Society

Letter 13

COMMENTER: Robert Hale, Conservation Chair, Monterey Bay Chapter California Native Plant Society

DATE: September 22, 2014

Response 13.1

The commenter states that CNPS believes the 2013 biological surveys to be inadequate due to drought conditions and the annual life cycle of many of the special status plants known from the region. The commenter requests that rare plant/sensitive plant surveys should include at least one year of above normal rainfall. Please refer to master response 2 for a discussion regarding the adequacy of rare plant surveys. Additionally, the commenter indicates that acreage for special status species outside the project area and BSA are not provided. As noted in master response 2, the 2014 Special Status Plant Survey Report (HTH 2014h; FEIR Appendix E.15) is attached, and these data are included in Table 7 of that report.

The commenter also indicates that the BSA appears “arbitrarily small” and does not include natural boundaries such as ridgetops and river channels. As indicated in the 2014 Special Status Plant Survey Report (HTH 2014h; FEIR Appendix E.15) , the BSA included at least a 100-foot buffer around direct impact areas, and encompassed a 5,033-acre area, of which about 53 percent is the project site (2,707 acres). Site access to conduct on-site biological surveys on private properties adjacent to but outside project boundaries are at the discretion of the land owner(s) and cannot be required under CEQA. Context surveys beyond project site boundaries as represented in the 2014 Special Status Plant Survey Report (HTH 2014h; FEIR Appendix E.15) represent a good-faith effort to provide regional context and data, although context survey boundaries may be subject to access limitations that preclude the use of natural features such as ridgelines and creeks as survey boundaries.

Response 13.2

The commenter remarks on Mitigation Measure B-1(b) that within the Habitat Mitigation and Monitoring Plan, monitoring of mitigation sites should be required for at least five years rather than three to verify that population numbers and habitat acreage targets for special status plants are actually met. The commenter is directed to Mitigation Measure B-1(a) which requires that areas proposed for preservation and serving as compensatory mitigation for impacts to special status species must contain verified extant populations of the special status species that would be impacted by the project. Since areas proposed for compensatory mitigation for special status plant species must contain verified extant populations to be counted, by definition the acreage requirements must be met. Additionally, Mitigation Measure B-1(b) states that the HMMP must include a contingency plan for mitigation elements that do not meet performance or final success criteria within described periods. A site that failed to meet population and habitat criteria within the initial three years of monitoring required for all sites under the HMMP would be subject to this contingency. The measure has been clarified to identify the need for follow-up monitoring if remedial actions are necessary, as shown below:



8. a contingency plan for mitigation elements that do not meet performance or final success criteria within described periods; the plan shall include specific triggers for remediation if performance criteria are not met and a description of the process by which remediation of problems with the mitigation site (e.g., presence of noxious weeds) shall occur; this contingency plan shall identify associated follow-up monitoring needs beyond the initial three years post-construction if remedial actions are required;

Response 13.3

The commenter remarks on Mitigation Measure B-1(c) that the initial plant surveys were inadequate. Please refer to master response 2 above for a discussion regarding the adequacy of rare plant surveys.

Response 13.4

The commenter contends that large number of individuals of *California macrophylla* and *Navarretia nigelliformis* ssp. *radians* represent occurrences of statewide exceptional numbers, and thus that avoidance must be required for populations of medium to high density or unusual numbers of all rare/sensitive plants. The DEIR provides a discussion of the local abundance of these two species within the BSA. Mitigation Measure B-1(d) requires that impacts to non-listed special status plant species be avoided or minimized to the greatest extent feasible, and that avoidance would reduce the required mitigation area. Mitigation Measure B-1(e) requires that off-site habitat occupied by the affected species shall be preserved and managed in perpetuity at a minimum 1:1 mitigation ratio (at least one plant preserved for each plant affected, and also at least one occupied acres preserved for each occupied acres affected). The measure further requires that sites proposed for compensatory mitigation for impacts to special status plants must contain verified extant populations of the species for which mitigation is proposed. Additionally, revisions to the project layout have been developed that relocate the substation and switching station to avoid direct impacts to the highest concentrations of *California macrophylla* and *Navarretia nigelliformis* ssp. *Radians* as depicted in the revised Figure 2-4h. Please refer to the Section 4.0, *Amendments to the EIR*, for this revised figure. See also responses 3.5, 12.A.45, 12.A.60, and 12.A.61 regarding special status plant mitigation.

Response 13.5

The commenter remarks on Mitigation Measure B-1(e) that the DEIR does not define the significance thresholds for special status plants, and that the mitigation example given is confusing. In the *Special Status Plants* subsection of Impact B-1, clarifying language was added; see response 12.A.45 for revised text. The threshold example in Mitigation Measure B-1(e) was clarified and additional language was added to further clarify the intent of the mitigation measure in response to this and other comments. See response 12.A.45 for revised Mitigation Measure B-1(e); see also responses 3.5, 12.A.45, 12.A.60, and 12.A.61 regarding impact thresholds and mitigation ratios.



The commenter goes on to discuss the need for a summary of population counts and habitat acreages for each species. As previously noted, this information is presented in the 2014 Special Status Plant Survey Report (HTH 2014h; FEIR Appendix E.15). Additionally, the commenter remarks on the significance of the large populations of *California macrophylla*, *Navarretia nigelliformis* ssp. *radians*, and *Calystegia collina* ssp. *venusta*, and describes these species as all CRP 1B, and states that the population estimates for these species outside the project site appear to be smaller than within the project site, making 1:1 mitigation infeasible. The first two species are currently ranked as CRPR 1B, but *Calystegia collina* ssp. *venusta* is correctly identified as being CRPR 4.3 in the DEIR and 2014 Special Status Plant Survey Report (HTHh; FEIR Appendix E.15). The commenter is directed to the special status plant impact analysis in the DEIR, subsection Special Status Plants under Impact B-1, that contains discussion of the local abundance of these plants as well as commentary that many project activities not requiring grading are not expected to impact all individuals within project site boundaries. Further, Table 7 of the 2014 Special Status Plant Survey Report (HTH 2014h; FEIR Appendix E.15) demonstrates a larger population outside project areas than within.

Response 13.6

The commenter remarks on Mitigation Measure B-2(a) that acreages of wildflower fields outside the BSA are not provided, and states that mitigation cannot be met if evidence of wildflower fields outside the BSA is not provided. The commenter further states that a 3:1 mitigation ratio is required for needlegrass and wildflower habitats to ensure quality. The impact discussion regarding valley needlegrass grassland and wildflower habitats in the DEIR indicates that wildflower fields are relatively common in the BSA, and approximately 262 acres of this habitat type within the BSA is outside the project footprint. Further, as noted in Section 4.4, *Biological Resources*, of the DEIR, a high affinity of regional occurrences of special status plants was noted in wildflower fields. Given the high numbers of special status plants reported from regional context surveys within five miles of the BSA, it is reasonable to conclude that wildflower fields of similar quality are present regionally, although vegetation mapping was not conducted for these off-site areas.

Mitigation through 1:1 conservation in-kind would meet CEQA requirements to offset impacts to a less than significant level. To ensure that mitigation for impacts to sensitive vegetation are mitigated in kind, Mitigation Measure B-2(a) has been clarified as follows:

- B-2(a) Valley Needlegrass Grassland and Wildflower Field Habitat Mitigation.** The applicant shall mitigate permanent impacts to these habitats caused by grading, construction of new road surface, array construction, and structure and building placement by preserving and managing valley needlegrass grassland at a 2:1 mitigation ratio and wildflower field at a 1:1 mitigation ratio (mitigation area: impact area) for total acreages of these habitats as presented in Table 4.4-8.

This compensatory mitigation may be fulfilled in conjunction with other mitigation requirements, such as those for special status plant or animal species affected by the project and should be consistent with



the conditions outlined in measure B-1(a), and shall be managed in accordance with the HMMP described in mitigation measure B-1(b).

Areas proposed for preservation and serving as compensatory mitigation for sensitive vegetation types must contain verified extant populations of the vegetation that would be impacted by the project. If existing floristic data has sufficient detail to classify and quantify wildflower fields to alliance level using currently accepted vegetation classification protocols outline in the Manual of California Vegetation, 2nd Edition (Sawyer et al. 2009) and the CDFW VegCAMP program, this data may be used to determine alliances and acreages required for compensatory mitigation. To demonstrate consistent quality and composition between mitigation sites and impacted sites, baseline plot data must be collected. Data collection must follow an accepted vegetation sampling methodology for cover, species composition, and species richness, and plot size must be appropriate for the community sampled. Guidance on minimum plot size is provided in the CDFW/CNPS Vegetation Rapid Assessment Method. Compensatory mitigation sites for sensitive vegetation must have similar or better native species cover, comparable species richness and composition, and meet alliance classification membership rules of the alliance, if any, for which mitigation is intended. The total number of baseline and mitigation site plots required to demonstrate consistency shall be determined by a qualified ecologist skilled in design of vegetation field sampling studies.

Mitigation Timing: The applicant shall obtain County approval of the location of mitigation lands, the holder of conservation easements, and the restrictions contained in the easement(s) created for the permanent protection of these lands in accordance with the timing outlined in measure B-1(a). **Monitoring:** Monitoring will be conducted in accordance with the conditions outlined in measure B-1(a).

Response 13.7

The commenter recommends that monitoring success of the Habitat Restoration and Revegetation Plan [required by Mitigation Measure B-2(b)] should be required for a minimum of five years and include at least two above average rainfall years. The comment is noted; however, item 4(b) of Mitigation Measure B-2(b) already addresses the need for monitoring to include normal rainfall years or demonstrate that restoration has succeeded in spite of low rainfall years. As stated in the measure:

Both qualitative and quantitative monitoring shall be required in all restored areas for at least two years following construction. Failure to meet pre-defined success criteria after two years of at least average annual rainfall will trigger remedial actions; however, as vegetation growth is lower during below-average rainfall years failure to meet success



criteria during years with lower than average rainfall will simply entail a longer monitoring duration until it can be determined that the restoration success requires remedial actions and the site is not simply being affected by below-average rainfall. Average rainfall is defined in this context as the 30-year average for the site (1981–2010), established by the Parameter-elevation Regressions on Independent Slopes Model (PRISM) Climate Group, or 13.12 inches per year (PRISM 2013). The actual annual rainfall must be measured using an onsite rain gauge, and if the actual measured precipitation does not meet this level by the end of the rainy season, these monitoring results will still be reported, but monitoring will continue until the monitoring data set includes at least two years in which this precipitation level is met or until success criteria are met in two monitoring years.

This measure provides for long term monitoring if warranted, in the event that the site underperforms, or if below average rainfall obscures progress of restoration efforts. By requiring success criteria to be met in two years with normal rainfall, the measure ensures that revegetation and restoration efforts have achieved stable vegetation conditions, and requires continued monitoring for as long as success criteria are not met. Two years of monitoring represents the minimum amount of monitoring, and would be accepted only if all success criteria are met in both years and rainfall is at least average for those years. Requiring additional monitoring in two above average rainfall years would not serve mitigation goals because it would not aid in determining if any poor performance is the result of deficiencies in restoration efforts that would require mitigation.

Response 13.8

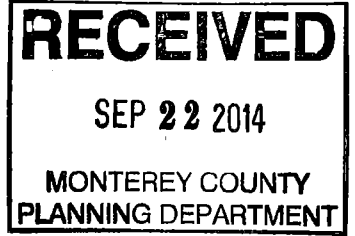
The commenter states that the alternatives analysis is incomplete because Section 7.1 (Alternatives Considered But Rejected) lists alternative Department of Defense (DOD) sites of former Fort Ord and Fort Hunter Liggett but that Fort Hunter Liggett was not discussed. Fort Hunter Liggett is discussed in Section 7.1.2 (Alternative Site Locations), concurrent with the discussion of former Fort Ord. The commenter states that Fort Hunter Liggett has similar characteristics to the California Flats site, and requests additional analysis. As stated in Section 7.1, these sites were eliminated from further analysis. The development of a DOD brownfield site could result in similar, if not greater, impacts to biological and cultural resources. Moreover, this alternative could cause substantial impacts during construction and operation of the facility by disturbing existing hazards inherently found on brownfield sites. Both sites lack existing transmission lines which may require the construction of new transmission facilities; both sites also would require remediation before a project could be constructed; and therefore, are not readily available for development. Because these sites are not feasible for development at this time, further analysis is not warranted.

The commenter also reiterates a previous comment that removing solar arrays from portions of the SGFA would greatly reduce impacts, and thus mitigation needs, for special status plant species. As noted above, the EIR includes mitigation measures for impacts to special status plants, including Mitigation Measure B-1(d), which requires that impacts to non-listed special status plant species be avoided or minimized to the greatest extent feasible, and that avoidance would reduce the required mitigation area; and Mitigation Measure B-1(e), which requires that off-site habitat occupied by the affected species shall be preserved and managed in perpetuity at a minimum 1:1 mitigation ratio (at least one plant preserved for each plant affected, and also at least one occupied acres preserved for each occupied acres affected).



Gonzales, Eva x5186

From: Don Romeka [dromeka@extreme-impact.com]
Sent: Monday, September 22, 2014 2:36 PM
To: Robinson, Delinda x5198; Ford, John H. x5158
Subject: Public Support for the California Flats Solar Project



September 22, 2014

Monterey County Planning Department

Dear Delinda and John:

I am a local business owner and employee about 30 people in Monterey County, property owner, father of two children, (Junior at Cal Poly SLO Engineering, and Freshman at LMU Business School).

I attended MIIS, and am very excited about our relationship with CSUMB, MPC, and the Sports Center.

I am emailing you today to show my support for the California Flats Solar Project.

I hope that the Monterey County Planning Department considers the many benefits of the California Flats Solar Project for both the environmental and economic impact.

Please call me directly if you have any questions.

Thanks,

Don Romeka | Extreme Impact, Inc. | CEO

Direct: (831) 521-5251

dromeka@extreme-impact.com



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Like Master Repair on Facebook!

14.1

Letter 14

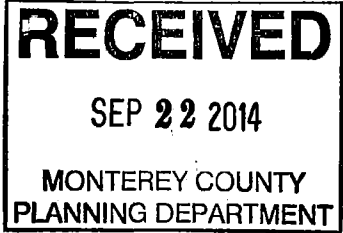
COMMENTER: Don Romeka, Chief Executive Officer, Extreme Impact, Inc.

DATE: September 22, 2014

Response 14.1

The commenter, a local business owner, expresses support for the proposed project. This comment is noted and will be forwarded to County decision-makers for their consideration.





CALIFORNIA NATIVE PLANT SOCIETY



Audubon CALIFORNIA



MONTEREY AUDUBON SOCIETY



SIERRA CLUB
FOUNDED 1892

September 22, 2014

Delinda Robinson, Senior Planner
Monterey County Resource Management Agency
Planning Department
168 W. Alisal St., 2nd Floor
Salinas, California 93901

Delivered via email to: robinsond@co.monterey.ca.us

RE: **California Flats Solar Project EIR (PLN 120294 and SCH 2013041031)**

Dear Ms. Robinson:

Thank you for the opportunity to provide comments on the Draft Environmental Impact Report (DEIR) prepared for the California Flats Solar Project (Project). These comments are submitted on behalf of Audubon California, the Center for Biological Diversity, California Native Plant Society, Defenders of Wildlife, and Sierra Club (Conservation Organizations). Our organizations are dedicated to protecting all wild animals and plants in their natural communities. We also strongly support the emission reduction goals found in the Global Warming Solutions Act of 2006 (AB 32). The development of renewable energy is a critical component of efforts to reduce greenhouse gas emissions, avoid the worst consequences of global warming, and to assist California in meeting its required emission reductions and advancing future carbon reductions.

We strongly support the development of renewable energy production. We urge that in seeking to meet current and future renewable energy targets in California, renewable energy projects be designed sustainably, to minimize impacts to the environment. In particular, renewable energy projects, like other forms of development, should avoid impacts to our fragile landscapes—both agricultural and native—that support sensitive wildlife and native plant species. Only by maintaining high environmental standards with regard to impacts on species and habitat, can renewable energy production be truly sustainable. We believe that there are many excellent, lower impact sites within California that can fulfill California’s energy goals when compared to the current siting of the California Flats Solar Project.

15.1

The proposed Project site is approximately 2,120-acres, which will develop a 280 MW solar photovoltaic (PV) power project located approximately 7 miles southeast of the community of Parkfield and 25 miles northeast of the city of Paso Robles. The proposed Project lies within the southern portion of the Coastal Ranges, in Cholame Valley. The project site is situated in close proximity to the convergence of Monterey, San Luis Obispo, Kings, and Kern counties.

The proposed Project site is designated by the Monterey County General Plan as Agriculture with the Project site zoned as Farmland. Current use of the proposed Project site is cattle ranching. The cattle ranching done on site is part of the 72,000 acre 'Jack Ranch' owned by the Hearst Corporation. Project site vegetation is primarily non-native annual grasslands with ~551 acres of sensitive wildflower fields within the proposed solar generating facility area containing high proportions and densities of native plant species. The Project site is surrounded primarily by undeveloped lands, along with small residential homes, and small farms to the south and east of the proposed Project site.

The proposed California Flats Solar Project would include the following components:

- Improvement and modification to 5.6 miles private access road;
- An unspecified number of miles of internal roadways;
- Undisclosed number of miles of security fencing
- SR 41/Private access road intersection improvements and modification;
- Undisclosed number of PV Solar tracker panel modules and components;
- Weather Stations
- Power Conversion Systems:
 - Direct current to alternating current power inverters
 - Step up transformers
- Collection systems
- 2 On-Site substations
- PG&E switching station
- 2.8 Mile 230kV overhead transmission line
- Approximate 3 Mile utility corridor
- Operations and Maintenance (O&M) facility
- Security lighting

15.1

The applicant proposes to construct the Project over a period of 12-24 months, beginning in 2015 and concluding in 2016.

The Conservation Organizations believe that the proposed Project is poorly sited **within an inappropriate area** given the biological resources and special status species that would be compromised and impaired as a result of this development. The proposed Project would entail the significant conversion of undeveloped grazing lands to industrial energy production and would directly result in the loss of habitat and displacement of a variety of species including State and Federally listed wildlife species such as San Joaquin kit fox (*Vulpes macrotis mutica*), California tiger salamander (*Ambystoma californiense*), conservancy fairy shrimp (*Branchinecta conservation*), longhorn fairy shrimp (*Branchinecta longiantenna*), vernal pool fairy shrimp (*Branchinecta lynchi*), California red-legged frog (*Rana draytonii*), Swainson's hawk (*Buteo swainsoni*), Golden eagle (*Aquila chrysaetos*), and Bald eagle (*Haliaeetus leucocephalus*) that are known to occur on or directly adjacent to or have the potential to occur, at the proposed Project site and/or surrounding areas. The area within and surrounding the project also provides habitat for a suite of sensitive, list-candidate, grassland birds that are species of concern including, but not limited to, Mountain Plover (*Charadrius montanus*), Prairie Falcon (*Falco mexicanus*) (confirmed nesting, Roberson 1989, pers. comm), Ferruginous Hawk (*Buteo regalis*), Rough-legged Hawk (*Buteo lagopus*), Yellow-billed Magpie (*Pica nuttali*), Short-eared Owl (*Asio flammeus*), Loggerhead Shrike (*Lanius ludovicianus*), Northern Harrier (*Circus cyaneus*), Lewis's Woodpecker (*Melanerpes lewis*), Tricolored Blackbird (*Agelaius tricolor*) and American Badger (*Taxidea taxus*). One winter eBird survey in December 2013 counted dozens of Ferruginous Hawk near the project site, east of Cholame Valley Road, underscoring the importance of the area to wintering raptors.

Comments

These comments are in response to the County's DEIR for the proposed California Flats Solar Project. The Conservation Organizations have reviewed the DEIR and find that the siting of the proposed Project places many imperiled and declining species at an elevated risk for displacement, mortality, and morbidity. The proposed Project will result in the loss of foraging habitat, transmission line construction and operational impacts, and the potential impacts from construction and operation of PV arrays on special status species. Additionally, the EIR is deficient in its analysis of mitigation measures and alternatives. The proposed Project as described in the DEIR will cause potential illegal 'take' if adopted in its current form.

15.1

Biological Surveys and Information inadequately disclosed

Within the appendices of the DEIR there are referenced 7 additional surveys that were to take place in 2013 (California Flats Solar Project DEIR: Appendix E1 pg. 17):

- Focused special-status mammal trapping surveys (underway)
- Dry-season listed branchiopod surveys (underway, samples in analysis)
- Winter bird surveys
- Avian activity surveys (underway)
- Wildlife corridor analysis
- Scent dog surveys for kit fox
- Additional spotlighting surveys

15.2

These surveys are not attached to the DEIR, nor were any of the data that would have been collected through the surveys included in the appendices of the DEIR. This a fundamental failure to comply with the intent of CEQA and the purpose of an EIR to provide informed decision making per Public Resources Code Sections 21002.1(a), 21003.1(b), and 21005(a). The data these surveys would provide is required to identify the impacts of the proposed Project. It is inexcusable that the DEIR did not include these surveys and studies.. The DEIR must be revised and recirculated.

Inadequate Biological Survey Boundaries

The Biological Study Area (BSA) boundary shown throughout the DEIR and in the supporting biological studies in the Appendices does not adequately cover the proposed project's impact area. While some of the BSA boundary covers areas adjacent to the proposed Project to identify off-site impacts, the BSA appears to be contiguous with a considerable portion of the northeast and northwest boundaries of the proposed Project area. There is no explanation of why the BSA was limited in these areas. This limited BSA does not adequately identify off-site impacts from the proposed Project. The BSA must cover an area of, at the very least, 1/4 mile outside of the entire proposed Project. Additional studies are required to identify the complete range of off-site impacts and the DEIR must be revised and recirculated.

15.3

Impacts Inadequately Addressed

San Joaquin Kit Fox

San Joaquin Kit Fox (SJKF) is one of the most critically imperiled species in California due to land use change that have occurred over the past century across the San Joaquin Valley floor and adjacent habitat areas. The species range boundaries delineated in 1969 show the species using and residing in areas from the southern Tehachapi Mountains north to areas west of Los Banos in Merced County,

15.4

including the Carrizo Plain and the Cholame areas (USFWS, 2010)¹. The area that this proposed Project will impact is directly adjacent to a SJKF satellite recovery area in Kings County identified by the USFWS as crucial to the survival of the species. The proposed project area itself resides on medium to low suitability habitat for SJKF identified by Penrod et al. 2010, while also containing medium to high suitability habitat identified by the Endangered Species Recovery Program (Cypher et al. 2013)². The Project area is highlighted in the appendices as important to SJKF, with the potential to interfere substantially with their movement in the area (California Flats Solar Project DEIR: Appendix E2, pg. 111). Unimpeded movement for kit fox (and other species) is a key concern in light of climate change impacts, which will require that species adapt and move to suitable habitat in the future.

The baseline surveys that were undertaken to determine presence of SJKF on the project site were inadequate given the acknowledgement of the high suitability of the land for the species, and the ample prey base that is present on the proposed Project site (occurrence of Heermann's kangaroo rats, Audubon's cottontail, and black-tailed jackrabbit). The surveys that were undertaken on the proposed Project site include: spotlight surveys in the winter of 2012 and the fall of 2013, general mammalian surveys, and camera traps. The surveys undertaken are commended, but it should be noted that spotlight surveys were specifically identified in the 5 year review of SJKF as 'marginally effective' even under optimal conditions in determining SJKF presence (USFWS, 2010, pg. 106). The fact that there were 4 confirmed sighting of SJKF from the spotlight surveys show that the project area is used for foraging and movement, if not denning for the species. Future focused surveys are alluded to in the Final Biotic Resources Report (pgs. 16 and 17) including scat detecting scent dog surveys. These surveys need to be undertaken and the results reported in order to determine the extent of occupation and use of the Project site and surrounding areas by SJKF in a revised and recirculated DEIR.

While the SJKF is a species known for its adaptability and use of varying landscapes, the species has also remained on the endangered species list since 1967 when the Endangered Species Act was passed. Since the time of listing, 47 years ago, the SJKF has had significant reductions in its range, increasing threats from development, and increasingly fragmented and isolated populations within the San Joaquin Valley (USFWS, 2010). Solar development and projects are identified as a major threat to the species' continued survival and population viability (USFWS, 2010 pg. 34). Not only do solar projects threaten the species habitat, movement and linkages, but they also may remove or limit future restoration activities that could occur on those lands. The viability of the species is a significant concern, with concerted efforts to focus future conservation on high suitability lands with existing populations of SJKF that can also serve as corridors or linkages for the species (Cypher et al. 2013). Of the three "core" habitat areas for kit fox, two have existing energy development in them and the third has a large-scale industrial energy project proposed in it. Because of this degradation, development on other habitat suitable for SJKF must be scrutinized carefully.

The proposed mitigation measures are inadequate to avoid significant impacts to the SJKF. A portion of the proposed Project is within San Luis Obispo County. San Luis Obispo County requires a minimum mitigation ratio of 4:1 when there are no SJKF present on the project site per

¹ San Joaquin Kit Fox (*Vulpes macrotis nutica*) 5-Year Review: Summary and Evaluation USFWS
http://ecos.fws.gov/docs/five_year_review/doc3222.pdf

² Cypher, B.L., Philips, S.E. and Kelly, P.A. 2013. Quantity and distribution of suitable habitat for endangered San Joaquin kit foxes: conservation implications. *Canid Biology & Conservation* 16(7): 25-31. URL:
http://www.canids.org/CBC/16/san_joaquin_kit_fox_habitat_suitability.pdf

existing county regulations and practices³. The lands that are proposed to be disturbed as part of the improvements to the private access road (to SR 41) must be mitigated at a minimum ratio of 4:1 within San Luis Obispo County. This project has recorded and documented SJKF presence. A ratio of no less than 5:1 should be required for all lands developed and disturbed on site that are of suitable habitat for SJKF given the species presence and probable use of the proposed Project Area. The mitigation lands that would need to be required to be purchased if this project were to move forward would need to be sited within high suitability areas (identified by Cypher et al. 2013) that contain existing populations of SJKF and serve as valuable corridor areas. Anything less would result in a significant impact to SJKF, which is unacceptable given the imperiled nature of the species and this proposed Project's cumulative and site specific impacts.

15.5

Eagles

Both Golden and Bald eagles have been identified as nesting very near the proposed project site (DEIR at 4.4-73). Both of these eagles are protected under the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA) under federal law. The Golden Eagle is a fully protected species under California law. Comprehensive Golden Eagle population estimates are uncertain within California, but the species is believed to be declining across its range within the contiguous United States (Pagel et. al 2010)⁴. The Biotic Report within the DEIR states that there were at minimum 20 pairs of Golden Eagles within 10 miles of the proposed Project site (California Flats Solar Project DEIR: Biotic Report, pg. 95). One active nest is 0.4 miles from the proposed Project Site in addition to the possibility of 2 other pairs within 0.7 miles of the proposed Project site. There were 12 confirmed active nests shown within 10 miles of the site. The density of Golden Eagles at this site is very high and not unusual given the terrain and the prey availability of the area (black tailed jackrabbits and Audubon's cottontail), which can be large factors in territory selection and resulting densities (Pagel et. al 2010 & Crandall 2013⁵).

The biotic resources impact analysis from the DEIR states that the proposed Project would represent a significant impact to Golden Eagles within the area, and proposes mitigation lands of ~5000 acres (calculated from mitigation ratios referenced in the DEIR), and other mitigation measures to reduce the proposed solar development footprint impacts, which is identified to permanently remove 2088 acres of Golden Eagle foraging habitat (California Flats Solar Project DEIR: Biotic Resources Impact Analysis, pg. 57). This proposal, while well intentioned fails to account for many additional disturbance factors resulting from the proposed Project that negatively affect Golden Eagles. The DEIR fails to consider the impacts from the commotion and disturbance of construction activities and increased human activities to the Golden Eagle pairs within the proposed Project area. Human disturbance is a known threat to the species, with the likelihood that nest failures occur predominantly from human disturbance (Pagel et. al 2010). Clear line of sight of humans or human disturbance can cause a significant change in a raptor's habitat usage (Richardson and Miller 1997)⁶. The impacts on Golden Eagles from human disturbance can be very large with a suggested buffer of 800 meters for all human disturbances, extending to 1600 meters (Richardson and Miller 1997). This suggested buffer area calls into question whether the project will be able to reduce impacts to Golden Eagle to less than significant with a known pair nesting within 0.4 miles (643m) of the project and 2 known pairs nesting within 0.7 miles (1126m). Nest abandonment is considered 'take' under

15.6

³http://www.slocounty.ca.gov/planning/environmental/San_Joaquin_Kit_Fox.htm & <http://www.sloplanning.org/gis/mapimagepdf/kitfox.pdf>

⁴http://www.fws.gov/southwest/es/oklahoma/documents/te_species/wind%20power/usfws_interim_goea_monitoring_protocol_10march2010.pdf

⁵<http://static.squarespace.com/static/528f911de4b01f2a31514e96/t/530d21a7e4b08ddcf7fe9a1f/1393369511313/Crandall%20MS%20Thesis%202013.pdf>

⁶ <http://docketpublic.energy.ca.gov/PublicDocuments/09-AFC->

[07C/TN200071_20130729T152048_CBD's_Comments_on_PSA_Final_Attachment_15.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/09-AFC-07C/TN200071_20130729T152048_CBD's_Comments_on_PSA_Final_Attachment_15.pdf)

BGEPA, which seems very likely given the area that will be under construction and the proximity to nesting pairs of Golden Eagles. The mitigation measures listed for Golden Eagle need to be bolstered, strengthened, and improved if this Project is to move forward. Anything less than 5:1 mitigation for the permanent development of 2088 acres of foraging habitat would not compensate the loss to the Golden Eagles that use the proposed Project site or nest in proximity to the proposed Project site. The disturbance to the birds alone may result in 'take' of Golden Eagle and the mitigation should be commensurate due to the high density of nesting pairs in the general area. Therefore, the proposed Project needs to acquire appropriate federal and state "take" permits – on the federal side, under the BGEPA, and on the California side, a Natural Communities Conservation Plan, which is currently the only mechanism that allows for the issuance of a "take" permit for fully protected species such as the golden eagle.

15.6

Insufficient Rare Plant Surveys

A drought year is not an appropriate time to determine the presence of sensitive plants or their distribution, especially for annual species. 2013 was a drought year. The DEIR's analysis of impacts to sensitive plant species on site is incomplete because the botanical conclusions based on drought-year surveys are incomplete.

We have concerns about the completeness of floral surveys, given the intensity of the drought that has gripped southeastern Monterey County. The DEIR's biological addendum lists the following plant species of concern:

- California androsace (*Androsace elongata ssp. acuta*)
- Crownscale (*Atriplex coronata var. coronata*)
- Round-leaved filaree (*California macrophylla*)
- South Coast Range morning-glory (*Calystegia collina ssp. venusta*)
- Potbellied spineflower (*Chorizanthe ventricosa*)
- Small-flowered morning glory (*Convolvulus simulans*)
- Hall's tarplant (*Deinandra halliana*)
- Protruding buckwheat (*Eriogonum nudum var. indictum*)
- Temblor buckwheat (*Eriogonum temblorense*)
- Hogwallow starfish (*Hesperewax caulescens*)
- Shining navarretia (*Navarretia nigelliformis ssp. radians*)

15.7

Members of the San Luis Obispo Chapter CNPS have been actively monitoring listed plant populations in eastern San Luis Obispo County, south and southeast of Highway 46 in very similar rangeland that been subject to the same drought conditions. Many of these populations, considered relatively abundant in normal to wet years, failed to germinate in 2013. In addition ephemeral wetlands such as vernal pools never contained any water. Therefore we conclude that many populations of the above-listed species would not have been evident during any survey made during the last three years of intensive drought, and also that grazing pressure would have been intensified on any plants that did germinate.

Additional surveys performed in a year of above normal rainfall will be necessary to document presence/absence of sensitive plant species and potential impacts to these species from the proposed Project.

The DEIR's wildflower field mitigation recommendations are insufficient in size to account for the net loss of impacted habitat, and insufficient in detail to ensure mitigation is commensurate with the type (plant and pollinator species composition) and quality (contiguous landscape) of wildflower

15.8

fields impacted. Additionally, the wildflower mitigation fails to address the identification and impacts to invertebrate pollinator guilds associated with the impacted habitat.

Appendix E.6 and p. 4.4-12 of the DEIR present habitat (vegetation) maps based on a combination of Holland vegetation types and the more detailed National Vegetation Classification System (NVCS) designations (DEIR at p. 4.4-12 - "Habitats"). The DEIR assigns the wildflower field habitat type based on the Holland classification types originally developed in the 1980's.

Wildflower field plant alliances classified under the NVCS, which is the current California state standard for vegetation classification, define naturally occurring assemblages of annual plants. These specific wildflower plant alliances are associated with specific invertebrate pollinator guilds. Classification of grassland and wildflower field NVCS alliances requires repeated surveying over time because plant species composition and dominance can vary both from season to season and from year to year at the same location. Thus the classification of wildflower field vegetation types is more complex than what is presented in the DEIR's analysis. Assigning mitigation through acquisition of additional "wildflower fields," a vegetation type based on the Holland classification, does not ensure the habitat acquired will be the same as the habitat destroyed.

15.8

Without more detailed information about which wildflower plant alliance occurs on the proposed Project site, assigning mitigation for "wildflower fields" elsewhere risks destroying one type of wildflower assemblage, along with its particular cohort of plant species and associated pollinator guilds, while acquiring another type of wildflower assemblage composed of different species and supporting different pollinators elsewhere. This would not mitigate the loss of the original existing natural resource.

Additionally, the 551 acres of wildflower fields on Jack Ranch occur across a contiguous landscape. Thus, any acquisition of habitat as mitigation must also occur across a contiguous landscape. Mitigation via acquisition of multiple, disjunct parcels would not represent mitigation of the existing natural resources.

Mitigation at 1:1 is not sufficient to account for the net loss of wildflower fields from development of the proposed Project. To establish a more appropriate mitigation ratio, the County should adopt the mitigation concepts embodied in the U.S. Army Corps of Engineers Mitigation Checklist, which bases mitigation ratios on criteria commensurate with loss of habitat. For example, the ACOE checklist calls for 1:1 mitigation when restoration of impacted habitat occurs. When mitigation involves only acquisition of "replacement" habitat, as is currently the case with CA Flats Solar, mitigation ratios increase to ameliorate the net loss of impacted habitat. We recommend adopting a 3:1 mitigation ratio for any loss of wildflower field habitat due to development of the proposed Project.

15.9

Swainson's Hawk

While the DEIR does not identify any nesting Swainson's hawks on the proposed project site, the DEIR does state the proposed project site is nesting and foraging habitat for the hawks (DEIR at 4.4-62). It is unclear if the required State survey protocols⁷ for Swainson's hawk have been implemented. Indeed the DEIR states that "surveys have not yet been conducted during the breeding season" (DEIR at Appendix E1 at PDF pg. 110). We could not find any additional information on surveys for Swainson's hawks in the documents.

15.10

⁷ <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83990>

Because the Swainson's hawk is a state listed threatened species and appears to still be a declining population, appropriate protocol level surveys need to be implemented with the results of those surveys reported in a revised and recirculated DEIR.

15.10

Burrowing Owl

The DEIR identifies that burrowing owl sign and owls "were observed within the project site and the Access Road during surveys in 2012" (DEIR at 4.4-73) but fails to identify the number of birds in the text of the DEIR or estimate of the number of territories that would be impacted by the proposed project. Over fifty owls are identified as being present on the proposed project site (DEIR at Figure 4.4-8). Burrowing owls are declining in California and the remaining stronghold for burrowing owls in California – the Imperial Valley – has a documented decline of 18% in 2011-2012⁸, resulting in an even more dire state for burrowing owls in California. Because of these continuing declines throughout California, the burrowing owls on this proposed project site (and on other projects) become even more important to species conservation efforts.

15.11

It is unclear if the protocol level surveys⁹ for burrowing owls as required by CDFW were implemented on the proposed project site. For this reason, surveys need to be completed, the results of which need to be included in a revised and recirculated DEIR. The DEIR also does not appear to rely on the new guidance on burrowing owl avoidance, minimization and mitigation as identified by the State of California¹⁰.

Migratory Birds

Large-scale energy facilities in California are having direct and indirect impacts on migratory birds¹¹ which are protected under the MBTA. The scale of the impacts and the significance to the overall population abundance and ecology of migratory bird species is potentially significant, yet due to a lack of standardized monitoring and analysis, remains unknown at this point in time. It is essential that standardized before-after-control-impact surveys of migratory birds are conducted when developing new projects, including the proposed project if it moves forward, in order to understand how solar projects and specifically photovoltaic projects are affecting our migratory bird populations and to ensure that projects are developed in accordance with federal law and international treaties.

15.12

Often, land developed for renewable energy projects is habitat used by migratory bird species as they migrate and periodically stopover at various sites. These areas are crucial for the viability of the migratory populations. At solar facilities in California that are either under construction or operational on public lands, individuals of over 40 species of migratory birds have been found injured or dead¹². Avifauna impacted by these facilities includes multiple species of raptors, passerines, and water birds. Often, the mortalities do not reflect the on-site, pre-construction avian inventories.

Per the Migratory Bird Treaty Act, and related regulations, the USFWS has no framework to accept compensation to help mitigate a project's impact on migratory bird populations and habitats;

⁸ IID 2012 <http://www.iid.com/Modules/ShowDocument.aspx?documentid=8171>

⁹ <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83842>

¹⁰ <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843>

¹¹ Kagan et al. 2014. http://docketpublic.energy.ca.gov/PublicDocuments/09-AFC-07C/TN202538_20140623T154647_Exh_3107_Kagan_et_al_2014.pdf

¹² IBID

however, the County may accept mitigation in collaboration with USFWS. At this time, it is essential that the County and wildlife agencies focus on identification of the source of mortality and likely extent so that it can be analyzed, avoided completely, or minimized and mitigated. We are seriously concerned that birds of multiple species may perceive solar photovoltaic facilities as large bodies of standing water on which to land – the “lake effect”. Because the project may actually create an “attractive nuisance” for migratory birds by creating the mirage of a lake or series of lakes, mitigation for migratory bird impacts should be separate from, and in addition to, mitigation for the loss of habitat for terrestrial species. As is well documented, this mitigation, to be effective, needs to involve riparian areas, additions to wildlife reserves and/or conservation and restoration of lands adjacent to riparian corridors or wildlife reserves. Consultation with the USFWS and CDFW will provide a ratio, which we suggest should be 3:1 due to the cumulative impacts of this project and others in the Pacific flyway.

15.12

With regard to the proposed Project, the County must require the project proponent to accumulate accurate and reliable information on the background mortality rate of migratory birds at the Project site and to establish protocols for mandatory standardized monitoring during and post-construction and commit to avoidance and mitigation measures. The Project design should take into account this risk and adopt measures that could protect avian species if possible. If the proposed Project is approved and constructed, then consistent monitoring must be put in place so that the agencies can assess the impacts to migratory birds and develop strategies to avoid, minimize and mitigate these impacts at this facility and use any information gleaned to help improve avoidance and minimization at other projects in the future.

Because the proposed Project has indirect impacts through loss of habitat for migratory birds, and since this loss is potentially significant, the revised DEIR must provide for mitigation lands for the indirect loss of migratory bird habitat in addition to other mitigation lands.

California Tiger Salamander

While no California tiger salamanders (CTS) were identified on site during the two seasons of protocol level surveys, it is still possible that this cryptic and declining species is present in the proposed Project area. While breeding habitat is of course crucial for the salamander’s survival, extensive, contiguous upland habitat is as important as the breeding site in conserving a CTS population. Land use impacts from the proposed Project that reduce the size and availability of upland habitat will adversely affect populations. CTS need at least 300-350 acres of contiguous upland habitat around any breeding sites, which may occur off the actual proposed Project site but are still crucial for foraging, estivation, and over-wintering and to protect the breeding adult population. Habitat connections between such upland-aquatic sites are also crucial for long-term metapopulation stability. The DEIR fails to discuss any off-project CTS surveys and the potential for the CTS to use the proposed Project site for foraging, estivation, and over-wintering in order to protect any breeding adult population.

15.13

In addition, the CTS, like many amphibians may be vulnerable to the use of poison grain baits for rodents. When these poisonous baits get carried into burrows, they develop a cycle of condensation whereby any amphibian that walks over them is liable to be poisoned. For this and other reasons rodenticides must be banned from the Project site.

15.14

California Red-legged Frog

The federally threatened California red-legged frog is known from the proposed project site. The DEIR recognizes that “most of the project site is considered suitable dispersal habitat for CRLF” (DEIR at 4.4-108), in addition to the documented breeding habitat in Cottonwood Creek. The

15.15

development of this crucial habitat for the red-legged frog will decrease the recoverability of the species as it fails to “Protect known populations”¹³ as recommended by U.S. Fish and Wildlife Service’s Recovery Plan. The DEIR fails to identify the ongoing worldwide amphibian decline crisis, and downplays the impacts of this proposed project on California’s own iconic amphibian species which is also in decline. Project evaluation in this manner leads to a “death by a thousand cuts” (or in this case, extinction by a thousand cuts) scenario. We believe significantly more safeguards need to be put in place to protect the red-legged frog population in this area from further declines. The DEIR is wholly inadequate in the impact analysis for this species. As mentioned above, the DEIR fails to address the direct impacts of rodenticides on the amphibians in the Project area, including the red-legged frog.

15.15

Other Sensitive Amphibians and Reptiles

The proposed Project site is noted to provide habitat for numerous other sensitive reptile species including at least forty-five southwestern pond turtles (DEIR at 4.4-115), western spadefoot (DEIR at 4.4-116), San Joaquin coachwhip (DEIR at 4.4-116), and the coast horned lizard (DEIR at 4.4-116). All of these species are in serious decline in California. The “boiler plate” language of the impact analysis fails to adequately evaluate the impacts to these species and how the “*significant but mitigable*” determination (DEIR at 4.4-116 and 117) was reached is unexplained.

15.16

Special Status Invertebrates

The DEIR indicates that cysts for vernal pool fairy shrimp were identified in several pools on the proposed Project site (DEIR at 4.4-78). As with many of the species discussed above, it is unclear if protocol surveys¹⁴ required by the US Fish and Wildlife Service were implemented for these critically imperiled invertebrates.

15.17

American Badger

The American badger is protected under California law as a fur bearing mammal (California Code of Regulations, Title 14, section 460) and may not be “taken” at any time. The DEIR states “Abundant evidence of American Badgers was observed within the BSA and Utility Corridor study area” and goes on to state “The risk of mortality, injury, displacement, and disturbance or harassment of American badgers is an impact likely to occur throughout all phases of construction during the 12–18-month Project build-out. Increased vehicle traffic may increase the frequency of vehicle collisions with badgers, and individuals may also be injured or killed if they are hit or crushed by construction equipment (e.g., graders, scrapers, bulldozers, and trucks) or entombed in burrows as a result of soil compaction or grading.” (DEIR at 4.4-96) As analyzed, illegal take of American badgers appears to be imminent if the proposed project moves forward. Clearly the County needs to carefully evaluate the impacts to this iconic grassland species in light of State protections.

15.18

Cumulative Scenario Impacts

Section 5.0 Cumulative Scenario and Methodology lists other projects within the central region of California that contain large-scale solar or oil development. The listing of the projects gives some understanding for decision makers as to the number of projects and what they entail, but does not give enough detail to determine the actual cumulative impacts of the combined projects on biological resources. Cumulative

15.19

¹³ http://ecos.fws.gov/docs/recovery_plan/020528.pdf pg. v.

¹⁴ <http://www.fws.gov/pacific/ecoservices/endangered/recovery/documents/VernalPoolBranchiopods1996Protocol.pdf>

impacts from solar developments on biological resources is discussed separately in Section 4.4 of the DEIR discussing impacts on San Joaquin Kit Fox, Blunt nosed leopard lizard and other special status species, stating that with proper site by site mitigation the impacts to the species cumulatively will be less than significant.

The cumulative impacts from this project and others like it are a result of the permanent or semi permanent transition from open grasslands/agriculture to the light industrial nature of a solar development. The projects identified within the DEIR that will affect similar resources, compared to the proposed project site, would result in solar development on ~28,000 acres, if all projects are developed.

15.19

Converting ~28,000 acres of open land within the region for energy development will have cumulative impacts to wildlife and special status species. Impacts to special status species need to be discussed thoroughly within this DEIR to give decision makers the proper information to analyze the impact of the proposed project within the context of its larger landscape. Mitigation site by site **will not** remove the cumulative impacts generated by these developments. The revised DEIR must include a cumulative impacts analysis sufficient to meet the requirements of CEQA.

Alternatives Analysis

The DEIR fails to provide an adequate alternatives analysis. Only three alternatives are addressed: 1) no project alternative, 2) alternate Jack Ranch site alternative and 3) reduced project alternative. The DEIR's alternative analysis unreasonably constrains the range of feasible alternatives and the County failed to establish an independent set of objectives to achieve the renewable energy goals required of this proposed Project. Several other feasible alternatives were identified during the scoping process (see Center for Biological Diversity's scoping comments dated 5/10/2013) and were inappropriately dismissed in the alternatives analysis. At a minimum, alternatives in the revised EIR need to include an alternative that looks at achieving the County's goal of renewable energy through distributed generation at the source of energy consumption, and a lower-impact alternative project site such the Westlands Solar Park¹⁵ – a development area that has minimal rare species conflicts and low current agricultural value.

15.20

Distributed generation was considered but rejected by the DEIR preparers, with the reasoning given for not considering this alternative:

- (1) Complications resulting from a 'distribution framework [that] would have to be developed and constructed'
- (2) Factors including feed in tariffs and manufacturing and installation costs
- (3) Feasibility of acquiring areas that would generate 280MW of energy
- (4) Failure to meet 'meet many of the objectives related to solar resources and land use compatibility summarized above'

15.21

The reasons given for not considering distributed generation are not adequate or logical, but result from the unnecessary and narrow constriction that was constructed by the objectives listed in Section 2.0 of the DEIR. Addressing the arguments posed against distributed generation:

- (1) Any complications resulting from a distribution framework would be managed separately from the applicant and through an appropriate utility company within Monterey County that presently manages distributed generation from solar or other small-scale sources of energy.

¹⁵ www.westlandssolarpark.com

- (2) These factors are impediments and added costs, but are only an assertion within the DEIR. This argument proposed is not supported by any documents.
- (3) Acquiring distributed areas to support 280MW of energy may be infeasible; but this assertion is not supported with arguments or documents.
- (4) The objectives of the document are constrained to favor development of the proposed Project Site specifically.

15.21

A project such as Westlands Solar Park needs to be analyzed in a revised DEIR alternative analysis. The siting of Westlands compared to the proposed Project site in Monterey County reduces many of the impacts to agricultural and biological resources. Additionally, the Westlands project is currently advancing in the permitting process and is increasingly viable. An alternatives analysis needs to consider 'reasonable' alternatives. Given the unreasonably constrained objectives in this DEIR, the alternatives analysis includes only sites that can be facilely and summarily rejected as unfeasible. The objectives should be revised to allow for proper assessment of the proposed Project site and the alternatives available.

15.22

Inadequate Mitigation Measures

If the proposed Project were to be considered for approval, numerous mitigation measures and alternatives must be improved significantly. The DEIR, as currently drafted, will expose the proposed Project to potential challenges if adopted in its current form. The Conservation Organizations request at a minimum that the following revisions and alternatives be included in a revised and recirculated DEIR:

15.23

MM B-1(a) Nested Compensatory Mitigation.

The applicant shall provide conservation easements or funds for acquisition of conservation easements as compensatory mitigation to offset impacts to vegetative communities and listed or special status plants and wildlife. The compensatory mitigation shall incorporate the conditions specified in incidental take permits that could be issued by CDFW and USFWS for this project, but shall meet the minimum standards specified in this measure. Compensatory mitigation shall be provided at a ratio of not less than those specified in mitigation measures B-1(e), B-1(j), B-1(n), B-1(v), B-1(z), and B-1(cc). Compensatory mitigation for multiple species may be combined to mitigate for impacts to multiple species simultaneously (i.e. nested compensatory mitigation). Areas proposed for preservation and serving as compensatory mitigation for special status species impacts must contain verified extant populations of the special status species that would be impacted by the project. Compensatory mitigation areas shall have a restrictive covenant prohibiting future development/disturbance and shall be managed in perpetuity to encourage persistence and enhancement of the preserved target species. Compensatory mitigation lands cannot be located on land that is currently held publicly for resource protection. The compensatory mitigation areas shall be managed by a conservation lands management entity or other qualified easement holder. All pre-existing interests, rights and encumbrances, including subsurface mineral interests as shall be subordinated to the conservation easement.

15.24

In addition, nested mitigation is only appropriate if the mitigation lands actually support the same species that will be impacted at the proposed project site and at the same population levels that proposed project site supports them. For example, if occupied habitat for red-legged frog is present on the proposed mitigation lands, but no round-leaf filaree is present, then the mitigation could not be "nested".

15.25

The applicant shall either provide conservation easements or provide funds for the acquisition of such easements to a qualified easement holder as defined below. The CDFW and organizations approved by CDFW that meet the criteria below may be considered qualified easement holders for those species for which the CDFW has regulatory authority. To qualify as a “qualified easement holder” a private land trust must at a minimum have:

1. Substantial experience managing conservation easements that are created to meet mitigation requirements for impacts to special-status species;
2. Adopted the Land Trust Alliance’s Standards and Practices; ~~and~~
3. A stewardship endowment fund sufficient to pay for its perpetual stewardship obligations. The stewardship endowment fund for this project’s mitigation shall be provided by the applicant; and
4. Accredited by the Land Trust Accreditation Commission or a member in good standing with the California Council of Land Trusts

15.26

Other specific conditions for qualified easement holders may be outlined in incidental take permits that could be issued by CDFW and USFWS for this project. The County shall determine whether a proposed easement holder meets these requirements. The applicant shall also be responsible for donating to the conservation easement holder fees sufficient to cover administrative costs incurred in the creation of the conservation easement (appraisal, documenting baseline conditions, etc.) and funds in the form of a non-wasting endowment to cover the cost of monitoring and enforcing the terms of the conservation easement in perpetuity. The amount of these administrative and stewardship fees shall be determined by the conservation easement holder in consultation with the County.

The primary purpose of the conservation easement(s) shall be conservation of impacted species and habitats, but the conservation easement(s) shall also allow livestock grazing when and where it is deemed beneficial for the habitat needs of impacted species. Conservation easement(s) shall comply with California Civil Code 815 et seq and be held in perpetuity by a qualified easement holder (as defined above), be subject to the management requirements outlined in the HMMP (see measure B-1[b]), and ~~be subject to a legally binding agreement that shall: (1) Be recorded with the County Recorder(s); and (2) contain~~ a succession clause for a qualified easement holder if the original holder is dissolved.

15.27

Land Acquisition Requirements. The following factors shall be considered in assessing the quality of potential mitigation habitat: (1) current land use, (2) location (e.g., habitat corridor, part of a large block of existing habitat, adjacency to source populations, proximity to potential sources of disturbance), (3) vegetation composition and structure, (4) slope, (5) soil composition and drainage, and (6) level of occupancy or use by all relevant species. Lands that are already subject to land use restrictions (e.g. flood zones, avigation easements) which preclude development are not acceptable.

15.28

To meet the requirement that the mitigation habitat is of value equal to, or greater than, the habitat impacted on the project site, the mitigation habitat must be either “suitable habitat” or “enhanced habitat”:

Suitable Habitat. To meet the requirements for suitable habitat that provides equal or greater habitat value for special status animal species than the impacted habitat, the habitat must:

1. provide habitat for special status animal species, such that special status animal species populations can regenerate naturally when disturbances are removed;

15.29

2. not be characterized by (or adjacent to areas characterized by) high densities of invasive species, such as yellow star-thistle, or species that might jeopardize habitat recovery and restoration;
3. not contain hazardous wastes that cannot be removed to the extent that the site could not provide suitable habitat; and
4. not be located on land that is currently publicly held for resource protection.
5. provide habitat that is currently used by the special status animal species directly impacted by the project

15.29

Enhanced Habitat. If suitable habitat is unavailable, or in lieu of acquiring already suitable special status animal species habitat, the applicant may enhance potential habitat that:

1. is within an area with potential to contribute to habitat connectivity and build linkages between known San Joaquin kit fox populations;
2. consists of actively farmed land or other land containing degraded habitat that will support enhancement;
3. supports suitable soils, slope, and drainage patterns consistent with special status animal species requirements;
4. cannot be located on land that is currently held publicly for resource protection; and
5. does not contain hazardous wastes or structures that cannot be removed to the extent that the site could not provide suitable habitat.

15.30

Enhanced Habitat Standards. If the applicant wishes to use enhanced habitat in lieu of acquiring or providing suitable habitat that meets the requirements listed above, the mitigation acreage for enhanced habitat shall be provided at a minimum ratio of 2:1 (enhanced habitat mitigation acreage : suitable habitat mitigation acreage). For enhanced habitat conditions to equal or exceed habitat conditions on the project site, the enhanced habitat shall meet the following habitat criteria: After five years, these sites must consist of annual grasslands, other grassland vegetation, suitable aquatic habitat, suitable foraging habitat (e.g. habitat is within 10 miles of known nesting golden eagles) or other habitat characteristics (e.g. suitable burrows for burrowing owls, small mammal burrows in upland habitat for CTS, etc.) that are consistent with the known ecology of the special status animal species to which compensatory mitigation is being applied.

Mitigation Timing: Prior to issuance of grading permits. Documentation of recorded easement(s) shall be submitted to and approved by the County prior to the first of the project's final inspections, or within 12 months after issuance of grading permits, whichever comes first. Verification of having met habitat mitigation requirements shall be reviewed and approved prior to final inspection. The applicant shall calculate the total acreages required to meet all compensatory mitigation obligations and submit these totals to the County prior to the issuance of grading permits. The applicant shall ~~then~~ obtain County approval of the location of mitigation lands, the holder of conservation easements, and the restrictions contained in the easement(s) created for the permanent protection of these lands. **Monitoring:** The County shall review documentation of compensatory mitigation land acquisition and associated restrictive covenants for consistency with the conditions outlined in the measure. These lands ~~may~~ shall be identified through independent consultation with ~~by~~ CDFW and ~~or~~ USFWS.

15.31

*The Conservation organizations have requested these changes to **MM B-1(a) Nested Compensatory Mitigation** to address:*

- *Clarity that the conservation easement comply with State law.*

15.32

- *Certainty that mitigation occur prior to grading. As currently proposed the site could be graded with resulting impacts and then abandoned without mitigation.*
- *Any mineral interests and their extraction, and other industrial uses are inconsistent with mitigation lands and the conservation easements that are set aside for the conservation of impacted species and habitat*
- *Lands precluded from development should not be used for mitigation.*
- *Conservation easement holders that may not be fully accredited, have the experience, or be in a position to fully protect and control management to ensure conservation of impacted species and habitat in perpetuity*
- *Suitable habitat requirements that shall ensure impacted species and habitat are actually protected as opposed to protecting and setting aside lands that do not contain and will not contain impacted species*
- *Ambiguity regarding enhanced habitat requirements that do not fully explain what enhanced habitat is, while also providing no reasoning or support as to how 'enhancing' habitat will mitigate for impacts to species and habitat (habitat or ecological restoration are a common term used for 'enhancing' habitat and should be used if this is the intent, with requirements for who would be managing and monitoring the restoration project included in the Final EIR)*
 - *Enhanced habitat should be provided at a higher ratio compared to suitable habitat given that restoration projects can have a high failure rate¹⁶*
 - *This higher ratio will provide some assurance that mitigation lands are of equal value or greater value to impacted species and habitat*

15.32

MM B-1(g) American Badger Avoidance and Minimization.

If suitable American badger dens are identified within the disturbance footprint, the den openings shall be monitored with tracking medium or an infrared-beam camera for three consecutive nights to determine current use. If the den is not in use, it shall be excavated and collapsed to ensure that no animals are present in the den.

If the den is occupied during the non-maternity period and avoidance is not feasible, badgers shall be relocated by first incrementally blocking the den over a three-day period, followed by slowly excavating the den (either by hand or with mechanized equipment under the direct supervision of a qualified biologist, removing no more than 4 inches at a time) before or after the rearing season (15 February through 30 June). Any passive relocation of American badgers shall occur only under the direction of a qualified biologist. Any passive relocation of American badgers will only be undertaken after at least 2 unoccupied "escape dens" are located within 500 feet of the project site. American badger dens determined to be occupied during the breeding season (15 February through 30 June) shall be flagged, and ground-disturbing activities avoided, within 100 feet to protect adults and nursing young. Buffers may be modified by the qualified biologist, provided the badgers are protected, and shall not be removed until the qualified biologist has determined that the den is no longer in use.

15.33

If a potential den is located outside of the disturbance footprint but within 500 feet of ground disturbing activities (including staging areas), the dens shall be avoided by installation of highly visible orange construction fencing a minimum of 100 feet around the den, designating the area an ESA. No equipment, vehicles, or personnel are permitted within ESAs without clear permission from a qualified biologist. The fencing shall be maintained in good condition and shall remain in place until all construction activities are completed within 500 feet of the den.

¹⁶ Suding, 2011, pg. 469; http://izt.ciens.ucv.ve/ecologia/Archivos/ECO_POB%202011/ECOPO7_2011/Suding%202011.pdf

Mitigation Timing: The applicant shall submit documentation that either no occupied American badger dens were recorded on the project site, or that appropriate avoidance measures have been implemented to ensure avoidance of active breeding dens prior to issuance of grading permits.

Monitoring: The County shall ensure that the applicant is in compliance with American badger impact avoidance and minimization measures.

15.33

*The Conservation organizations have requested these changes to **MM B-1(g) American Badger Avoidance and Minimization** to address:*

- *Success of passive relocation on American badger; passively removing American badgers without a designated or known relocation area would increase the impact of the project on the species and would not reduce impacts to a less than significant level*

MM B-1 (j) Compensatory Habitat Mitigation for San Joaquin Kit Fox.

To mitigate for the loss of San Joaquin kit fox habitat from the installation of all new facilities, ~~except the SDAs,~~ the applicant shall provide compensatory mitigation acreage, adjusted to reflect the final Project footprint in consultation with CDFW, but at a minimum of ~~3:1~~ 5:1 ratio (preserved habitat: affected habitat). ~~The compensatory mitigation must provide equal or greater habitat value than the project site. To mitigate for the impacts to San Joaquin kit fox habitat within the SDAs, the project Proponent shall provide compensatory mitigation acreage, adjusted to reflect the final footprint of the SDAs in consultation with CDFW, but at a minimum of 2:1 ratio. All compensatory mitigation must comprise habitat of value equal to, or greater than, the project site. Compensatory mitigation areas for San Joaquin kit fox can be combined with mitigation for multiple species as outlined in measure B-1(a) for nesting mitigation. Compensatory mitigation for San Joaquin kit fox shall be consistent with the conditions outlined in the above measure B-1(a), and managed and monitored under the HMMP as outlined in the above measure B-1(b).~~

15.34

Mitigation Timing: Identification of the total acreage for mitigation of San Joaquin kit fox must be submitted to the county prior to the issuance of grading permits. All other timing shall be consistent with measure B-1(a).

*The Conservation organizations have requested these changes to **MM B-1 (j) Compensatory Habitat Mitigation for San Joaquin Kit Fox** to address:*

- *All impacts to the species from solar development (no reasoning is given for treating solar development areas differently than other areas on the Project site, with no justification for the mitigation ratios either)*
- *The lack of a reasonable mitigation ratio (San Luis Obispo county has practices and guidelines that recommend a 4:1 ratio with no SJKF present; the presence of SJKF on the site and the past use of the site by SJKF necessitate a 5:1 mitigation ratio, with the argument for such a ratio presented above under 'Impacts to San Joaquin Kit Fox')*

MM B-1(p) Wildlife-Friendly Fence Design.

~~The~~All perimeter and interior fencing ~~around the perimeter~~ of the project site and SDAs shall be raised five to seven inches above ground level ~~designed to allow passage by SJKF, American badger, and their prey species, by incorporating openings in the perimeter fence that are a minimum of 4-inch by 4-inch for SJKF, with additional 6-inch by 7-inch openings to allow permeability by~~

15.35

American badgers. The opening should be located at least every 500 feet along the perimeter fence. Interior fencing may be designed such that it is installed four to five inches above ground, as measured from the top of the ground to the lowest point of the bottom of the fence. The bottom of the fence edges shall be knuckled (wrapped back to form a smooth edge) to allow wildlife to pass safely. Fencing of the Solar Facility shall not include electrified fencing or any fencing with slats that are opaque or non-transparent along the perimeter of the Facility.

Mitigation Timing: The Wildlife-friendly fence design plans shall be submitted by the applicant to the County, CDFW, and USFWS for review and approved by the County prior to issuance of grading permits. **Monitoring:** The County shall ensure that an approved wildlife-friendly fence design is included in final project design.

15.35

*The Conservation organizations have requested these changes to **MM B-1(p) Wildlife-Friendly Fence Design** to address:*

- *Special status species views of barriers within the landscape (large opaque or non-transparent fences will appear or seem a barrier to special status species rendering the wildlife friendly fencing unused, not mitigating for the impacts to special status species raising the impact above a less than significant level)*
- *Limited opening at 500' intervals would impede wildlife movement across the site and would increase impacts to special status species including San Joaquin kit fox and American badgers.*
- *Certainty and enforceability of the mitigation measure through language amendments*

MM B-1(ff) Special Status Animal Species General Avoidance Measures and Construction Best Management Practices. (16)

16. Use of chemicals, fuels, lubricants, or biocides shall be in compliance with all local, state, and federal regulations. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation. Use of rodenticides shall not be permitted except for the limited use of zinc phosphide, or a rodenticide approved by the County, and only after other means of pest control (e.g. rodent traps) have proven to be ineffective for use on any part of the project site. Herbicide application should shall be limited to areas where mowing is not possible (e.g., within fenced areas around buildings and beneath solar panels). Humane rodent traps shall only be used within buildings on the project on site.

15.36

*The Conservation organizations have requested these changes to **MM B-1(ff) Special Status Animal Species General Avoidance Measures and Construction Best Management Practices (16)** to address:*

- *The risks of rodenticide exposure to special status species and their prey base (SJKF are noted as susceptible to rodenticide exposure especially within this area of the state¹⁷)*
- *Excessive application of herbicides on the Project site*

¹⁷ Nogueire, T., J. Lawler, N. Schumaker, B. Cypher, and S. Phillips. In revision. Land use drives patterns of rodenticide exposure in modeled kit fox populations. Biological Conservation. Manuscript available. url: <https://dl.dropboxusercontent.com/u/1360973/NogueireSCB2014.pptx>

Conclusion

Clearly the number of rare, endangered and sensitive species that have been documented on the project site and the additional number of rare, endangered and sensitive species that have potential to occur on the site, makes this proposed project area unsuitable for solar development. In addition the numerous failures of the DEIR to fully identify the full project description, the baseline biological information or perform an adequate analysis of the impacts requires that the DEIR be revised and recirculated. A better alternatives analysis is also required.

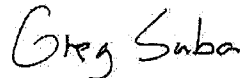
15.37

Thank you for your consideration of these comments. In light of the many omissions in the environmental review to date, we urge the County to revise and re-circulate the DEIR before making any decision regarding the proposed project. Please feel free to contact us if you have any questions about these comments or the documents provided.

Sincerely,



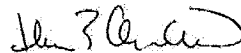
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Letter 15

COMMENTER: Kim Delfino, California Director, Defenders of Wildlife; Greg Suba, Conservation Program Director, California Native Plant Society; Garry George, Renewable Energy Director, Audubon California; Ileene Anderson, Senior Scientist, Center for Biological Diversity; Blake Matheson, President, Monterey Audubon; and Rita Delassio, Conservation Chair, Sierra Club Ventana Chapter

DATE: September 22, 2014

Response 15.1

The commenter describes the organizations who are commenting and states that they support the development of renewable energy production and believe that renewable energy projects should be designed sustainably, to minimize impacts to the environments. The commenter provides a description of the project and its impacts and states that “the proposed Project is poorly sited within an inappropriate area given the biological resources and special status species that would be compromised and impaired as a result of this development.” The commenter also argues that the DEIR is deficient in its analysis of mitigation measures and alternatives and that the proposed project as described in the DEIR would cause potential illegal ‘take’ if adopted in its current form. The comments summarized here represent the opening statement for this comment letter and do not provide any specific substantive comments. As such, the commenter is referred to the following responses 15.2 through 15.37. Regarding the siting of the project site, this comment pertains to the merit of the proposed project more so than the environmental analysis. The DEIR analyzed the project as proposed, and appropriately evaluated impacts compared to baseline biological conditions (refer to master responses 1 and 2 for overall adequacy of biological studies), and impacts to all the species indicated were appropriately evaluated. Refer also to Section 7.0, *Alternatives*, of the DEIR for a discussion of alternative sites for the proposed project.

Response 15.2

The commenter notes seven additional surveys listed in Appendix E of the DEIR that were to take place in 2013 and states that the surveys and their data were not attached to the DEIR. Please refer to response 12.12 for a discussion of additional surveys and appended reports.

Response 15.3

The commenter disputes that the extent of the BSA is appropriate and states that the DEIR does not adequately cover the proposed project’s impact area. A biological study area is defined based on the specific characteristics of the biological resources being evaluated, the type and extent of suitable habitat, and the lands for which the applicant is authorized to enter. Many projects only require surveys of the project site, or only have access to lands within the project site, and surveys of just the project site can, and do, provide reasonable and appropriate evaluation of biological conditions and potential impacts to biological resources. In this case, given the size of the project site and the presence of a variety of vegetation communities, a larger area was evaluated to determine the potential for special status species to occur on the



project site, and evaluate the potential for impacts to those species in the context of adjacent and regional conditions. The survey area was designed with the specific variables of suitable habitats for special status species that may occur on the project sites (for example see responses 12.A.16 and 12.A.17 relating to CTS and CRLF survey areas). In addition, restrictions for access to privately owned land imposed limits to the area that could be surveyed (for example see response 12.A.19 in regards to SJKF). Surveys of the project area and associated BSA as conducted provided sufficient data to accurately assess the existing biological conditions on the project site and to evaluate potential impacts to special status species.

Response 15.4

The commenter contends that baseline surveys to determine presence of San Joaquin kit fox were inadequate given the high suitability of the land and prey base on the proposed project site, and that additional surveys that have been conducted must be reported. Refer to master response 1 for a discussion of the adequacy of biological surveys in general, to response 12.A.19 for a specific discussion on SJKF surveys, and response 12.12 for a discussion of additional survey reports included as new appendices.

Response 15.5

The commenter disputes the efficacy of proposed compensatory mitigation for San Joaquin kit fox and proposes higher mitigation ratios. Refer to master response 1 for a discussion of the adequacy of biological surveys in general, and to specific discussions of the adequacy of SJKF surveys and mitigation in responses 12.A.19, 12.A.20, 12.A.22, 12.A.32, 12.A.34, and 12.A.68.

Response 15.6

The commenter disputes the efficacy of proposed disturbance buffers for active nests of both golden and bald eagles protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act, and recommends higher mitigation ratios for loss of foraging habitat. Refer to response 12.A.12 for a discussion of the evaluation of impacts to eagles. Regarding increased mitigation ratios, it is unclear what evaluation the commenter used to determine that a mitigation ratio of 5:1 would be the minimum required to sufficiently mitigate for impacts to golden eagle foraging habitat. The proposed mitigation ratios and required minimum standards for compensatory mitigation and nested compensatory mitigation (as discussed and revised in response 16.48) provide reasonable and sufficient mitigation for impacts to golden eagle foraging habitat

Response 15.7

The commenter states that the floral surveys conducted for the project may not be complete due to drought, and requests that additional surveys be conducted in a year with above normal rainfall. Please refer to master response 2 for a detailed response to comments regarding the adequacy of rare plant surveys.

Response 15.8

The commenter remarks on use of the Holland classification “wildflower fields” as being outdated and lacking sufficient detail to effectively analyze impacts. Please refer to responses 12.A.10 and



13.6 which respond to similar comments and provide clarification of mitigation measures for wildflower fields.

Response 15.9

The commenter states that existing wildflower fields within the project site are on a contiguous landscape, and thus mitigation must also occur on a contiguous landscape. The EIR contains figures documenting wildflower field locations that demonstrate that while the habitat type is widespread, it consists of patches separated by other vegetation types and it is expected that this pattern is representative of vegetation in the region. Thus, preservation of completely contiguous wildflower fields is likely infeasible. Mitigation Measure B-2(a) indicates that lands acquired for compensatory mitigation of impacts to sensitive vegetation types must be consistent with criteria laid out for special status species mitigation lands identified in Mitigation Measure B-1(a): preservation lands must be within known ranges and known occurrences of local populations of the resource for which impacts are being mitigated. Further, Measure B-1(a) identifies the priority for locations within large blocks of existing habitat, adjacency to source populations, proximity to potential sources of disturbance, vegetation composition and structure, and level of occupancy or use by all relevant species in criteria for prioritizing acquisition of mitigation lands. These measures already identify the need for conservation of local wildflower fields with preference for larger contiguous blocks, thus no revisions to the DEIR were made in response to this comment.

The commenter also remarks on the mitigation ratio for wildflower fields, stating that mitigation must be consistent with the USACE mitigation checklist. The USACE checklist is specific to wetland habitats under federal jurisdiction. Currently, a standard mitigation ratio across the state does not exist for sensitive vegetation types that are not specifically regulated. The *Impact Significance for Grassland Habitats* discussion under Impact B-2 in the DEIR states that “permanent impacts to these habitats would be significant under CEQA because they would substantially and adversely affect sensitive natural communities. Therefore, this impact would be considered *Class II, significant but mitigable*.” Regardless of what alliances and associations are included within the wildflower field, serpentine bunchgrass grassland, and valley needlegrass grassland habitat types, a detailed mitigation plan (HMMP) would be developed per Mitigation Measure B-1(b) and implemented using on-site baseline conditions as the guideline for in-kind mitigation to be accomplished. Evaluations of pollinator guilds is beyond the scope of CEQA review, and would add little to the evaluation of potential impacts to specific sensitive communities because it would provide no additional information as to the potential for occurrence or distribution of special status plant species on the project site. The DEIR specifies and prescribes information that would be required to evaluate the specific characteristics of sensitive communities for which compensatory mitigation would be required, as outlined in Mitigation Measures B-1(b). As noted in response 13.6, mitigation requirements for wildflower fields in Mitigation Measure B-2(a) have been clarified to provide detail on baseline data collection necessary to assure in-kind mitigation.

Response 15.10

The commenter states that the DEIR is unclear as to whether the required State survey protocols for Swainson’s hawk have been implemented and contends that appropriate protocol level surveys need to be implemented with the results of the surveys reported in a revised and recirculated DEIR. Refers to master response 1 for a discussion of the adequacy of biological surveys in general,



and to response 12.A.13 for a specific discussion regarding the adequacy of Swainson's hawk surveys.

Response 15.11

The commenter disputes the methodology for evaluating impacts to burrowing owls and states that the DEIR does not appear to rely on the new guidance on burrowing owl avoidance, minimization and mitigation as identified by the State. Refer to master response 1 for a discussion of the adequacy of biological surveys in general, and to responses 3.9, 3.11, 12.36 and 12.A.39 for specific discussions and clarifications regarding impacts to and mitigation for impacts to burrowing owls. CDFW provides recommended guidelines for protocol surveys for burrowing owl to establish where and how specific mitigation may be required; however these are not required surveys and as discussed in master response 1, protocol surveys are not required to evaluate the potential for special status species to occur on a project site. Mitigation Measure B-1(m) requires preconstruction surveys following the guidelines within the CDFW Staff Report (CDFW 2012) to identify active burrowing owl burrows present at the time of construction, and the development of a burrowing owl exclusion plan as discussed and revised in responses 3.9 and 3.11.

Response 15.12

The commenter describes impacts of large-scale energy facilities on migratory birds and contends that the project must include additional measures to evaluate impacts to migratory birds and to mitigate impacts to migratory birds. Refer to response 12.A.45 for a discussion of the evaluation of impacts to migratory birds.

Response 15.13

The commenter disputes the conclusions and methodology for evaluating impacts to CTS. The DEIR has identified suitable upland habitat for CTS within the project site, included appropriate measures to avoid and mitigate potential impacts to CTS that may occur in upland habitat on the project site [see Mitigation Measures B-1(x), B-1(aa) and B-1(bb)]. Refer also to responses 3.14, 3.15, 12.12, 12.35 and 12.A.16 for additional discussions on the evaluation of impacts to and mitigation for CTS.

Response 15.14

The commenter argues that rodenticides need to be banned from the project site, as California tiger salamander may be vulnerable to poisoning. Appropriate restrictions on the use of the all chemicals and biocides have been included in Mitigation Measure B-1(ff), Item 16, requiring that the project adheres to all EPA, CDFA and other state and federal restrictions on the use of biocides. Because of the habitat function and value of the majority of the project site within the solar array areas, the use of rodenticides would be highly limited and restricted to specific situations where other non-rodenticide measures had failed, and only with County approval.

Response 15.15

The commenter contends that the DEIR is inadequate in the impact analysis of California red-legged frog and fails to address direct impacts of rodenticides on individuals in the project area.



The DEIR has appropriately identified suitable upland dispersal habitat within the project site and correctly identified those areas where project activity has the potential to impact CRLF. The project does not directly impact significant areas of suitable breeding habitat for the species, and standard measures for avoiding and reducing impacts to CRLF have been included in Mitigation Measures B-1(w) through B-1(z). Refer to response 3.14 for additional clarification on CRLF mitigation, and to responses 12.12, 12.35 and 12.A.17 for additional information on the adequacy of the CRLF surveys, impacts analysis and proposed mitigation.

Response 15.16

The commenter disputes the methodology and conclusions for impact analyses of southwestern pond turtle, western spadefoot, San Joaquin coachwhip, and the coast horned lizard. Southwestern pond turtle, western spadefoot, San Joaquin coachwhip, and the coast horned lizard are all non-listed California special status species, for which impacts must affect the species at the population-level to be considered significant (i.e. loss of individuals would not be considered a significant impact under CEQA). See master response 1 for a discussion of the adequacy of biological surveys in general. The DEIR identified the presence of suitable habitat for these species on the project site and correctly characterized the potential for impacts to these species from project development. The project would not permanently impact the entire project site, with the portions of the project site proposed for solar arrays being maintained as grassland habitat, and expected to continue to provide suitable habitat for these species and their prey. Potential direct impacts to these species related to project construction activity have been minimized and avoided through Mitigation Measures B-1(w), B-1(ee), B-1(ff) and B-1(gg).

Response 15.17

The commenter states that it is unclear if protocol level surveys required by USFWS were implemented for vernal pool fairy shrimp on the project site. Protocol level surveys are not required to evaluate potential impacts under CEQA (see master response 1). USFWS approved the survey approach for vernal pool branchiopods conducted from winter 2012 through spring 2013.

Response 15.18

The commenter contends that the County needs to carefully evaluate impacts to American badger in light of State protections (specifically California Code of Regulations, Title 14, section 460). Measures included in the DEIR to avoid and minimize potential direct impacts to American badger are expected to protect this species from the majority of potential impacts, and the DEIR does not consider take of American badger to be imminent. Furthermore, American badger is addressed in California Code of Regulations (CCR), Title 14, Section 461 where take is authorized during the defined season with no limit; however, the species is considered to be a species of special concern (SSC) by CDFW. CCR Title 14, Section 461 is applicable to intentional hunting and does not address incidental take during otherwise lawful activity. However, take of species protected or otherwise regulated under CCR Title 14 does not equate to a significant impact under CEQA, nor does loss of individuals of CDFW SSC species unless those losses represent a significant impact at the population-level. American badger occurs in relatively high abundance in the region and direct impacts at the project site are unlikely to result in significant



impacts to the regional population. Furthermore, Mitigation Measures B-1(f), B-1(g), B-1(p), B-1(ee), B-1(ff) and B-1(gg) would result in the minimization and avoidance of any direct impacts (including take) to American badger.

Response 15.19

The commenter contends that the cumulative analysis does not provide sufficient detail to determine the cumulative impacts of the combined projects on biological resources and that impacts to special status species need to be discussed thoroughly in order to analyze the impact of the proposed project within the context of its larger landscape, and disagrees that site by site mitigation addresses cumulative impacts. DEIR Section 5.0 *Cumulative Scenario and Methodology* outlines a wide range of active and potential development within a region that includes Monterey, Kings, Fresno and San Luis Obispo Counties, and identified a number of similar solar projects that are most likely to combine with California Flats Solar project to create cumulative impacts. These solar development projects in the project vicinity are further described in Section 5.2.2, and include:

- *California Valley Solar Ranch, San Luis Obispo County*
- *Topaz Solar Farm, San Luis Obispo County*
- *Quinto Farms, Merced County*
- *Maricopa Sun Solar Complex, Kern County*
- *Kern Solar Ranch, Kern County*
- *Panoche Valley Solar Farm, San Benito County*
- *Tranquillity Solar Generating Facility, Fresno County*
- *Westlands Solar Park, Fresno and Kings Counties*

The discussion therein describes each solar project at an adequate level of detail to facilitate an analysis of cumulative effects (refer also to response 12.57).

The commenter notes that the development of all of these solar projects would result in the conversion of roughly 28,000 acres of open land to light industrial use. The biological resources impacts of each of these projects could combine to result in significant cumulative impacts, including impacts on sensitive species and habitats. However, mitigation required for these impacts, consistent with mitigation and conservation practices that have been shown to be successful, and consistent with regional conservation plans (such as USFWS recovery plans) and conservation and resource protection policies contained in the General Plans of Monterey County and the counties noted above, the cumulative effects on these resources would be reduced. Regarding state and federally listed species, as discussed in DEIR Section 4.4.g *Regulatory Framework*, the USFWS and CDFW implement state and federal laws (i.e. ESA, CESA, MBTA, BGEPA) designed to protect biological resources and ensure avoidance of, or complete mitigation for impacts to protected and rare species. CDFW, RWQCB and USACE are responsible for implementing state and federal laws designed to ensure complete avoidance and/or mitigation of any impacts to Waters of the State, Waters of the U. S. and associated jurisdictional habitat. Furthermore, Monterey County and San Luis Obispo County provide specific ordinances and policies designed to ensure avoidance and reduction of potential impacts to biological resources. County policies are contained with the Conservation Element of each County's General Plan as outlined in DEIR Section 4.4.g *Regulatory Framework*. In whole, these laws, regulations, ordinances



and policies have been designed to ensure the avoidance of, or complete mitigation for project impacts to sensitive biological resources. The issuance of “take” permits by CDFW and/or USFWS necessarily includes sufficient avoidance measures and appropriate compensatory mitigation to ensure less than significant impacts to state and federally listed species. Non-listed species that are otherwise considered sensitive by CDFW, as well as sensitive vegetation communities and habitats, are protected under CEQA and require avoidance or mitigation to reduce impacts to less than significant, and numerous guidelines and standard procedures are in place to ensure impacts are appropriately avoided or mitigated for these non-listed biological resources.

Nevertheless, although the cumulative effects of these projects on biological resources may be significant, in accordance with State CEQA Guidelines Section 151064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project’s incremental effects are cumulatively considerable. The DEIR includes a multitude of mitigation measures designed to reduce the incremental impact of the project on biological resources, including through avoiding impacts to biological resources altogether, consistent with federal, state and local laws, regulations, ordinances and policies. These measures include extensive studies and preconstruction surveys to identify all sensitive biological resources present at the time of construction, appropriate avoidance buffers to ensure direct impacts to these species are completely avoided, daily preconstruction activity for specific species, biological monitoring of all construction activity (Mitigation measure B-1[ee]), as well as the numerous standard minimization and avoidance measures included in Mitigation Measure B-1(ff), and environmental awareness training for all construction staff (Mitigation Measure B-1[gg]). Resource agencies including CDFW, USFWS, USACE and RWQCB require various permits that will further ensure impact avoidance and mitigation for project impacts on sensitive biological resources and jurisdictional habitats. As discussed in response 12.A.12, where direct impacts cannot be avoided, mitigation measures include passive relocation to suitable adjacent habitat and the permanent conservation of compensatory mitigation lands. Conditions that must be met for compensatory mitigation and the preservation of conservation easement lands are consistent with USFWS and CDFW guidelines for compensatory mitigation and will be conducted in consultation with those resource agencies. Protection of permanently managed conservation lands will result in an overall increase in the quality of habitat available for sensitive biological resources, effectively reducing impacts from the proposed project to a less than significant level. Given the less than significant impacts of the project following mitigation, and the local, state, and federal regulatory framework in place to avoid or reduce impacts on biological resources, the incremental contribution of the project to cumulative biological resources impacts would not be cumulatively considerable.

Response 15.20

The commenter contends that the DEIR failed to analyze enough alternatives. CEQA Guidelines Section 15126.6 requires that an EIR “describe a range of reasonable alternatives” to a project, and specifies that “an EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation.” A range of reasonable alternatives was considered and evaluated in the EIR. As noted by the commenter, three alternatives were analyzed in the DEIR. In addition, 11 additional alternatives were considered, but rejected from further consideration for the



reasons cited in Section 7.0, *Alternatives*. This included three alternative technologies, two Department of Defense (DOD) brownfield sites, and six small brownfield sites.

The commenter additionally suggests that the County should have established an independent set of objectives for the project. CEQA does not require that a Lead Agency prepare independent objectives for a project proposed by a private entity. However, the County of Monterey reviewed the project objectives presented in Section 2.0, *Project Description*, and determined that they were appropriate for the proposed project.

The commenter further suggests two alternatives: a distributed generation alternative, and an alternative location such as the Westlands Solar Park. Refer to responses 15.21 and 15.22 for discussions of these suggested alternatives.

Response 15.21

The commenter suggests a distributed generation alternative. This alternative was considered but rejected from further consideration in the DEIR. As described in Section 7.0, *Alternatives*, if a distributed generation alternative were implemented, end users would have to be identified and approve of the installation. The electric distribution network (e.g., "grid") is not designed to easily accommodate large numbers of distributed generation systems; thus, a new distribution framework would have to be developed and constructed. Other factors include feed-in tariffs and manufacturing and installation costs. A distributed generation alternative would generally result in fewer environmental impacts than the proposed project, given that end user systems would be installed on rooftops and in other already-developed areas. However, the applicant could not feasibly acquire control of a sufficient number of rooftops or other disturbed areas to install the infrastructure needed to generate up to 280 MW of distributed solar energy, nor would this alternative meet many of the objectives related to solar resources and land use compatibility summarized above. For these reasons, distributed energy was eliminated as an alternative to be evaluated in the EIR.

The commenter disagrees with the reasons given for rejecting such an alternative, as listed above. Specifically, the commenter suggests that a new distribution framework could be developed and constructed through an "appropriate utility company" that "presently manages distributed generation from solar or other small-scale sources of energy." The commenter does not identify a specific utility company, nor does the commenter indicate how a utility company would create a new distribution framework. Creation of a new distribution framework by a third party utility company is outside of the applicant's or the County's control and would therefore not be a feasible alternative.

Finally, the commenter suggests that the objectives of the document are constrained to favor the proposed project. As noted in response 15.20, the County of Monterey reviewed the project objectives presented in Section 2.0, *Project Description*, and determined that they were appropriate for the proposed project.

Response 15.22

The commenter states that the DEIR should analyze the Westlands Solar Park project. It is not appropriate for the DEIR to analyze a different project that is undergoing its own, separate



permitting and review process. The commenter notes that the Westlands Solar Park is advancing in the permitting process. Prior to approval, this project will require review under CEQA. The commenter is encouraged to review the Westlands Solar Park Project EIR when it becomes available.

Refer also to Section 7.0, *Alternatives*, for an analysis of an alternative site (Alternative 2: Alternate Jack Ranch Site).

Response 15.23

The commenter contends that mitigation measures and alternatives need to be improved and provides a series of recommended revisions. Refer to responses 15.24 through 15.37 for responses to specific recommended revisions.

Response 15.24

The commenter recommends that the following sentence be added to the end of the first paragraph of Mitigation Measure B-1(a): "All preexisting interests, rights and encumbrances, including subsurface mineral interests shall be subordinated to the conservation easement. Specific prohibition of uses for the conservation easement lands would be included in the conservation easement deed and would address the necessary restrictions to ensure the conservation of suitable and enhanced habitat in perpetuity." By definition, the conservation lands would not function as compensatory mitigation lands if they could be used for any kind of development in the future, therefore this additional language is superfluous.

Response 15.25

The commenter recommends that language regarding the need for mitigation lands to actively support populations of all species for which nested mitigation is being conducted. Refer to responses 12.A.46, 12.A.49, 12.A.50, 13.2, and 16.48.

Response 15.26

The commenter recommends additional requirements should be added to Mitigation Measure B-1(a) for a private land trust to qualify as a qualified easement holder. The measure as written includes reasonable and appropriate standards for the identification of qualified easement holders, what is required to be considered a qualified easement holder (including minimum standard of having adopted the Land Trust Alliances standards and practices), and specifically states that the applicant is responsible for funding the acquisition of conservation easements.

Response 15.27

The commenter recommends additional changes to Mitigation Measure B-1(a) regarding the details of the conservation easement. The changes requested by the commenter would not clearly improve the quality of the conservation easement or substantively change the mitigation. The measure as written addresses the specific details required to ensure that



conservation easements are managed by a qualified holder and an appropriate manner to mitigate impacts to habitat from project development.

Response 15.28

The commenter recommends that additional language be added to Mitigation Measure B-1(a) stating that land with existing land use restrictions precluding development should not be considered for compensatory mitigation. Mitigation Measure B-1(a) already includes language that restricts compensatory mitigation lands from being located on land that is currently held publicly for resource protection.

Response 15.29

The commenter recommends that additional requirements should be added to Mitigation Measure B-1(a) regarding the presence of special status species on mitigation lands. Mitigation Measure B-1(a) as written and as revised (see response 16.48) requires the compensatory lands to provide suitable and viable habitat and be within known ranges and occurrences of species for which mitigation is being provided. See responses 12.A.46 and 13.2 for additional discussion on the adequacy of compensatory mitigation.

Response 15.30

The commenter states that mitigation ratios should be increased for enhanced habitat compensatory mitigation. The proposed mitigation ratios provide appropriate and reasonable mitigation for potential impacts to habitat that would be predominantly impacted on only a temporary basis, and in which there is a reasonable expectation that habitat function and value for many species would continue during the operational phase of the project.

Response 15.31

The commenter recommends revisions to the *Mitigation Timing* for Mitigation Measure B-1(a) to be completed prior to issuance of grading permits. Because it is a lengthy process to identify and evaluate potential mitigation lands, it is standard practice to conduct compensatory mitigation concurrently with project development. Refer to response 12.A.52 for a more detailed discussion of the timing for compensatory mitigation and development of the HMMP.

Response 15.32

The commenter summarizes the requested changes to Mitigation Measure B-1(a). Refer to the previous responses 15.24 through 15.31 for specific responses to the recommended revisions.

Response 15.33

The commenter recommends additional conditions for passive relocation of American badger. Mitigation Measure B-1(g) as written provides standard and reasonable measures for avoiding impacts to American badger and for standard language for passive relocation of this non-listed CDFW species of special concern. The American badger is a managed game species, and impacts to individuals would not be considered a significant impact under CEQA. Based on the



lack of direct impacts to the majority of the project site and therefore the limited nature of potential impacts to badger burrows, and based on the extent of available badger habitat on and adjacent to the project site, standard passive relocation measures as written are reasonable and appropriate for mitigating potential impacts to the regional population of American badgers.

Response 15.34

The commenter recommends revisions and additional protections for impacts to SJKF habitat under Mitigation Measure B-1(j). The SGFA would not be developed in the same manner as infrastructure areas on the project site, and grassland habitat would be allowed to continue to provide habitat on the majority of the project site within the SGFA [see the discussion of the evaluation of long-term habitat function and value for the SGFA in the BRIA (HTH 2014b; DEIR Appendix E2)]. Therefore, compensatory mitigation for permanent impact areas (access roads, substations, and other permanent infrastructure) are mitigated at a different ratio than impacts within the SGFA where natural habitat would be allowed to remain intact, and where use by those areas is expected to continue.

Response 15:35

The commenter recommends revisions to the wildlife-friendly fence design included in Mitigation Measure B-1(p). Refer to response 3.12 for a discussion of the adequacy of project fencing.

Response 15.36

The commenter recommends revisions for pesticide use included in Mitigation Measure B-1(ff). Refer to response 15.14 for a discussion of the adequacy of MM B-1(ff) as regards the use of rodenticides.

Response 15.37

The commenter concludes their comments contending that the proposed project area is unsuitable for solar development due to the presence/potential for occurrence of rare, endangered, and sensitive species, and that analyses of impacts and alternatives was not adequate. As an area that has been under an active grazing regime for many years, the project site does not consist of specifically sensitive or high quality native habitat. The EIR provides an in-depth evaluation of the existing conditions for biological resources, fully evaluates and analyzes the potential for special status species to occur on the project, identifies those special status species that are present or have the potential to occur on the site, and includes appropriate measures to mitigate impacts to special status species that do or may occur on the project site.





Denise Duffy & Associates, Inc.
PLANNING AND ENVIRONMENTAL CONSULTING

TRANSMITTAL

DATE: September 22, 2014

TO: Delinda Robinson, Senior Planner, RMA – Planning Department

CC: John Ford, Planning Services Manager, RMA- Planning Department
Scott Dawson, Manager of Siting and Permitting, First Solar, Inc. (for California Flats Solar, LLC)
Koryn Kendall, Manager, Project Development, First Solar, Inc.
John Gaglioti, Senior Project Manager, Project Developer – Engineer, First Solar, Inc.
Denise Duffy, Principal, DD&A, Inc.
David Lazerwitz, Project Counsel, Farella Braun + Martel LLP

FROM: Tyler Potter, AICP, Project Manager

REFERENCE: California Flats Solar Project – PLN120294

ENCLOSED

SENT BY

FOR

Table with 3 columns: ENCLOSED, SENT BY, FOR. Rows include Reports, Letter, CD, Other, Hand, Regular Mail, Express/Priority Mail, Overnight, Other, Approval/ Signature, Per Your Request, Review/Comment, For Your Records, Other.

REMARKS/COMMENTS:

Please find enclosed the following material prepared in support of the above referenced project:

- First Solar, Inc., California Flats Solar Project – PLN120294; SCH #2013041031 Draft Environmental Impact Report, Comment Letter & Attachments, September 22, 2014, including the following technical information:
HT Harvey & Associates, Results of the 2013 Scent Dog Surveys, California Flats Solar Project, January 2014
Western EcoSystems Technology, Inc., California Flats Solar Project, 2014 Eagle Nest Survey Report, August 12, 2014
Western EcoSystems Technology, Inc., California Flats Solar Project, Eagle Use Survey Interim Report, March 10- June 2014, September 5, 2014.

If you have any questions concerning the enclosed material, please feel free to contact me directly.

16.1



September 22, 2014

Delinda Robinson
Monterey County Resource Management Agency
Planning Department
168 W. Alisal Street, 2nd Floor
Salinas, CA 93901
CEQAcomments@co.monterey.ca.us

Re: California Flats Solar Project – PLN120294; SCH#2013041031 Draft Environmental Impact Report

Dear Ms. Robinson:

California Flats Solar, LLC (Applicant), a wholly owned subsidiary of First Solar, Inc., hereby provides to the County of Monterey (County) its written comments on the Draft Environmental Impact Report (EIR) for the California Flats Solar Project (Project), issued by the County on August 6, 2014. Our written comments consist of both this letter and the documents contained in the attachments, each of which is incorporated herein by reference.

At the outset, we thank County staff and the County's consultant, Rincon Consultants, Inc. (Rincon), for their hard work in compiling and preparing this Draft EIR in support of the Project. We also appreciate the significant public outreach efforts and agency consultation that has been conducted for the Draft EIR by the County under the California Environmental Quality Act (CEQA).

We have provided our comments in the two attached tables, which are organized by chapter and section in the Draft EIR. The first table, "Table 1 – Comments," contains substantive comments on specific issues in the Draft EIR for the County's consideration. Please note that we have included three (3) figures as part of our comments that relate to certain comments in Table 1. The second table, "Table 2 – Errata," contains factual and typographical revisions that should be incorporated in the Final EIR.

We have also attached two golden eagle survey reports for 2014 which provide nest surveys and on-going survey data for golden eagle within a ten mile radius of the Project site, and a 2013 scent dog survey report assessing the presence of San Joaquin kit fox on the Project site. This updated survey data does not present any significant new information but, rather, confirms the data identified and analyzed in the Draft EIR as part of the Applicant's ongoing effort to track relevant environmental resource information.

We appreciate the considerable time and effort that the County and Rincon have devoted to the scoping process, data development, impact analysis, mitigation measure formulation and overall preparation of this Draft EIR. Our comments are intended to add transparency and further explain the findings contained in this draft document, so that the Final EIR accurately summarizes all of the relevant data, analysis and conclusions.

Please feel free to contact us at any time if you have any questions or would like to discuss these comments.

Sincerely yours,



Koryn Kendall
Manager, Project Development

Attachments:

- (1) Table 1 – Comments
- (2) Table 2 – Errata
- (3) California Flats Solar Project - 2014 Eagle Nest Survey Report
- (4) California Flats Solar Project - Eagle Use Survey Interim Report, March 10 – June 24, 2014
- (5) Results of the 2013 Scent Dog Surveys - California Flats Solar Project, Monterey County

cc: John Ford, Monterey County RMA – Planning Department
Scott Dawson , First Solar
Beth Deane, First Solar
David Lazerwitz, Farella Braun + Martel LLP

16.2

Table 1 – Comments

California Flats Solar Project, Draft Environmental Impact Report, County of Monterey, California, August 6, 2014

California Flats Solar, LLC - September 22, 2014

| Comment | Document Chapter | Page Number | Figure or Table Number | Comment and/or Reference |
|---------|------------------------------------|-------------|--------------------------------|--|
| 1. | Chapter 2 (Project Description) | 2-15 | FIGURE 2.4a, 2.4e, 2.4h | <p>2.5.1, PG&E Switching Station, general comment: Based on discussions with PG&E, the location for PG&E switching station and, as a result, the proposed northern substation, has been revised as shown on the three attached site plans, “Site Plan – Index Map” – Figure 2.4a in the Draft EIR, “Site Plan – B2” – Figure 2.4e in the Draft EIR, and “Site Plan – C2” – Figure 2.4h in the Draft EIR, which are incorporated herein by reference, and which should replace the corresponding site plans in the Draft EIR. These changes are necessary based on more refined design information from PG&E and in order to further reduce potential impacts associated with the switching station. The proposed changes would not result in any additional environmental effects or cause an increase in severity of an identified effect and, in fact, would further reduce impacts to certain plant species. The extent of environmental effects would be consistent with or less than those evaluated in the Draft EIR. The overall size of the PG&E switching station and northern substation would remain the same and the new location for the switching station and substation is within the SDA. A small portion of the transmission line easement is located outside of the SDA; however, potential impacts within this area would be limited to transmission line improvements. The limited ground disturbance within the transmission line easement were previously described and evaluated in the Draft EIR. Overall, this change in layout would lessen the extent of impacts to sensitive plant species as compared to the current design. As currently proposed, the substation and switching station would directly impact both <i>Navarretia nigelliformis</i> and <i>California macrophyllia</i>. The proposed revisions, as shown on the attached site plan, would completely avoid impacts to <i>California macrophyllia</i> and significantly reduce the extent of impacts to <i>Navarretia nigelliformis</i> associated with current location of the substation and switching station. Overall, the proposed revision would lessen the extent of potential impacts associated with the proposed project. The proposed changes would not result in any additional adverse environmental effects, cause an increase in severity of an identified impact, or result in a substantial change to the project that would deprive the public meaningful opportunity to comment on the project or a significant environmental effect.</p> |
| 2. | Chapter 2 (Project Description) | 2-91 | TABLE 2.4 | <p>Add APM-10. The project proponent will prepare a Bird and Bat Conservation Strategy (BBCS) to identify conservation measures to minimize avian impacts, describe the avian use of the site, and describe a post-construction avian mortality monitoring program. This Avian Mortality Monitoring Program (AMMP) will monitor operational effects of the project on avian species. The AMMP will include the following elements:</p> <ul style="list-style-type: none"> • Surveys of the solar arrays for bird mortality during the initial operations and maintenance phase; |

16.3

16.4

Table 1 – Comments

California Flats Solar Project, Draft Environmental Impact Report, County of Monterey, California, August 6, 2014

California Flats Solar, LLC - September 22, 2014

| Comment | Document Chapter | Page Number | Figure or Table Number | Comment and/or Reference |
|---------|------------------------------------|-------------|------------------------|---|
| | | | | <ul style="list-style-type: none"> • Protocols for data collection, documentation, and reporting to the County; • Protocols to assess searcher efficiency and carcass removal; and • Minimum credentials of monitoring personnel and/or appropriate training. |
| 3. | Chapter 2 (Project Description) | 2-91 | TABLE 2.4 | <p>Add APM-11: The applicant shall prepare a design level drainage analysis that will ensure that project facilities are not placed in areas where they would be subject to significant flood or erosion hazards or affect the existing capacity of affected watercourses. The design level drainage study will incorporate the following flood-risk and erosion avoidance measures contained in the <i>Preliminary Drainage Report</i> (RBF 2013) and in the <i>Preliminary Drainage Analysis Addendum</i> (Wallace Group 2014):</p> <ul style="list-style-type: none"> • No modules shall be placed in areas where the product of the flow depth and flow velocity is greater than 9 square feet per second (corresponding to a hazard level 3, as defined in the Preliminary Drainage Report) during a 100-year, 24-hour storm event; • No transformers, substations, or inverters shall be placed in areas where the flow depth exceeds 2 feet (corresponding to a hazard level 3, as defined in the Preliminary Drainage Report) during a 100-year, 24-hour storm event; • Transformers, substations, or inverters constructed in areas where any inundation is expected to occur should be placed a minimum of 1 foot above the 100- year water surface elevation; • Solar modules constructed in areas where any inundation is expected to occur should be placed a minimum of 6-inches above the 100- year water surface elevation; and • Tracker actuator motors constructed in areas where any inundation is expected to occur should be placed a minimum of 6-inches above the 100- year water surface elevation. <p>In addition, the design level drainage analysis shall contain measures to ensure that any project-related improvements within 50 feet from the top of bank of on-site drainages will not result in significant erosion related hazards and that these improvements will not affect the existing capacity of the affected watercourse, as required by Chapter 16.16 of the Monterey County Code. Prior to the issuance of grading permits, the applicant shall submit the design-level drainage analysis to the Monterey County Water Resources Agency for review and approval.</p> |
| 4. | Section 4.1 (Aesthetics) | 4.1-1 | TABLE 4.1.1 | <p>Impact AES-1: The temporary construction effects associated with the proposed project do not rise to the level of significance warranting mitigation. The second sentence in the “Impact” column should be revised as follows: <u>“Potential impacts during project construction would be temporary in nature and affected views would be limited. Impacts would be Class IV, less than significant [Threshold 1]”,</u></p> |

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| | | | | significant but mitigable. [Threshold 1] “ The “Mitigation Measures” column should be revised to state: “No mitigation measures are required.” The “Residual Impact” column should be revised to state: “Impacts would be less than significant without mitigation.” |
| 5. | Section 4.1 (Aesthetics) | 4.1-1 | TABLE 4.1.1 | Impact AES-2: The temporary construction effects associated with the proposed project do not rise to the level of significance warranting mitigation. The second sentence in the “Impact” column should be revised as follows: <u>“Potential impacts during project construction would be temporary in nature and affected views would be limited. Impacts would be Class IV, less than significant [Threshold 3],</u> significant but mitigable. [Threshold 3] “ The “Mitigation Measures” column should be revised to state: “No mitigation measures are required.” The “Residual Impact” column should be revised to state: “Impacts would be less than significant without mitigation.” |
| 6. | Section 4.1 (Aesthetics) | 4.1-1 | TABLE 4.1.1 | Impact AES-3: The requirement in the Mitigation Measure column, sixth sentence, that the Construction Lighting Plan “shall include the location, type, and wattage of <u>all</u> external light fixtures and include catalog sheets of each fixture” (emphasis added), is overbroad and goes beyond the standard lighting plan requirement. Moreover, the standard lighting plan requirement is tied to operational lighting and is a standard condition of approval (COA). The level of specificity called for by the sixth sentence is not necessary to achieve the minimization of nighttime lighting impacts intended by the mitigation measure. The mitigation measure contains performance standards that will ensure that the intended results are achieved. The sixth sentence should be deleted, as follows: “The Plan shall include the location, type, and wattage of all external light fixtures and include catalog sheets of each fixture.” |
| 7. | Section 4.1 (Aesthetics) | 4.1-3 | | Section 4.1.2.c, Proposed Project Viewshed, second full paragraph: The analysis should be clarified to demonstrate that it is unlikely that the construction of infrastructure improvements within the utility corridor would be perceptible from Cholame Valley Road, given the distance of the roadway relative to the proposed infrastructure improvements. Please revise the last sentence as follows: <u>“The proposed project site is not visible from any roadways, with the exception of one location on Turkey Flat Road where the public road terminates into the project site. and Cholame Valley Road, which, Due to the surrounding topography and distance of the project site relative to other public roads, the project site is not visible from any other roadways. generally have very limited views of the site, despite its size. Views from Cholame Valley Road towards the project site would be obstructed by intervening topography and distance. Due to the distance of project, including the proposed utility corridor, relative to Cholame Valley Road, it is unlikely that any component of the project would be visible from this roadway.”</u> |

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| 8. | Section 4.1 (Aesthetics) | 4.1-20 | | 4.1.3.a, second to last paragraph: The Draft EIR does not acknowledge that the project includes APMs to address the potential environmental effects associated with project decommissioning. Please insert the following sentence before the last sentence in the paragraph: <u>“As described in Section 2.0, Project Description, the project includes APM-1 to ensure that all potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.”</u> | 16.9 |
| 9. | Section 4.1 (Aesthetics) | 4.1-21 | | Section 4.1.3.b, Impact AES-1, first paragraph: The construction of improvements within the utility corridor would not be perceptible from Cholame Valley Road. Accordingly, the text should be revised as follows: <u>“As noted in Section 4.1.2(c) (Proposed Project Viewshed), the project site is visible from Turkey Flat Road, Cholame Valley Road, and SR 41. While the proposed utility corridor is located in proximity to Cholame Valley Road, the construction of infrastructure improvements within the utility corridor would generally not be visible from Cholame Valley Road and would be barely perceptible given the existing visual character of the area as perceived from Cholame Valley Road.”</u> | 16.10 |
| 10. | Section 4.1 (Aesthetics) | 4.1-22 | | Section 4.1.3.b, Impact AES-1, second paragraph: The temporary construction effects associated with the proposed project do not rise to the level of significance warranting mitigation. Accordingly, the analysis at the end of the second paragraph should be revised as follows: <u>“Temporary construction related effects associated with staging, vehicle queuing, and delivery would not substantially adversely affect a scenic vista. Temporary construction impacts would be limited in duration as perceived by vehicular traffic along SR 41. This would represent a less than significant impact for the purposes of this analysis. No mitigation is necessary. Although construction of the proposed roadway improvements and the staging areas would be short term and temporary, drivers traveling along SR 41, an eligible state scenic highway, would see this construction equipment for a short segment of SR 41. Therefore, impacts related to scenic vistas along SR 41 are potentially significant.”</u> In addition, Mitigation Measure AES-1 should be deleted. | 16.11 |
| 11. | Section 4.1 (Aesthetics) | 4.1-23 | | Section 4.1.3.b, Impact AES-2, fourth paragraph: The temporary construction effects associated with the proposed project do not rise to the level of significance warranting mitigation. Accordingly, the last sentence should be revised as follows: <u>“Temporary construction staging would be limited in duration. Views of construction staging, as perceived from vehicular traffic on SR 41, would be limited. Temporary construction related visual impacts are not considered significant for the purposes of CEQA. This represents a less-than-significant impact. No mitigation is warranted. The temporary placement of construction equipment at these areas represents a potentially significant impact on visual character.”</u> | 16.12 |

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| 12. | Section 4.1 (Aesthetics) | 4.1-23 | | <p>Section 4.1.3.b, Impact AES-2, last paragraph: In general, the construction of infrastructure improvements within the utility corridor would not be visible from Cholame Valley Road. The existing Morro-Bay Gates line is barely visible from this location and the construction of improvements associated with the project would be even less prominent. It is highly unlikely that these improvements would be perceptible from Cholame Valley Road given the intervening distance.</p> <p>Accordingly, the last paragraph should be revised as follows: “The KOP 4 represents a location from which the proposed utility corridor infrastructure could be some somewhat visible from a public viewing location, <u>although given the distance of the viewing location and proposed improvements it is unlikely that infrastructure improvements would be visible from this location.</u> ... Therefore, the proposed utility corridor would not substantially degrade this viewshed <u>and would be consistent with the existing visual character of the area,</u> and the visual impacts related to the proposed utility corridor are less than significant.”</p> | 16.13 |
| 13. | Section 4.1 (Aesthetics) | 4.1-24 | | <p>Section 4.1.3.b, Impact AES-3, second paragraph: Additional nighttime lighting may be needed on the site, depending on the nature of construction-related activities, although the extent of such lighting would be limited in duration. The following text should be inserted before the last sentence: <u>“Additional nighttime lighting may be needed, on an as-needed basis, elsewhere on the site depending on the nature of construction-related activities.”</u></p> | 16.14 |
| 14. | Section 4.1 (Aesthetics) | 4.1-26 | | <p>Section 4.1.3.b, Impact AES-3, Mitigation Measure: The requirement in the sixth sentence of the mitigation measure that the Construction Lighting Plan “shall include the location, type, and wattage of <u>all</u> external light fixtures and include catalog sheets of each fixture” (emphasis added), is overbroad and goes beyond the standard lighting plan requirement. Moreover, the standard lighting plan requirement is tied to operational lighting and is a standard COA. The level of specificity called for by the sixth sentence is not necessary to achieve the minimization of nighttime lighting impacts intended by the mitigation measure. The mitigation measure contains performance standards that will ensure that the intended results are achieved. The sixth sentence should be deleted, as follows: “The Plan shall include the location, type, and wattage of all external light fixtures and include catalog sheets of each fixture.”</p> | 16.15 |
| 15. | Section 4.2 (Agriculture) | 4.2-5 | | <p>Section 4.2.2, Local, Monterey County Zoning Ordinance – Title 21, last paragraph: The text should indicate that the project is considered an allowable use with a permit under the County Zoning Ordinance. Insert the following text after the third sentence: <u>“Projects considered “public and quasi-public uses, including public utilities,” may be developed with a use permit under the site’s existing</u></p> | 16.16 |

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| | | | | <u>zoning (Monterey County Zoning Ordinance §21.30.050(b) and §21.34.050(d)).</u> ” | |
| 16. | Section 4.2 (Agriculture) | 4.2-8 | | Section 4.2.3.a, Methodology and Significance Thresholds, Evaluation Criteria, carry-over paragraph at top of page: The Draft EIR does not acknowledge that the project includes APMs to address the potential environmental effects associated with project decommissioning. Please insert the following sentence before the last sentence in the paragraph: <u>“As described in Section 2.0, Project Description, the project includes APM-1 to ensure that all potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.”</u> | 16.17 |
| 17. | Section 4.2 (Agriculture) | 4.2-8 | | Section 4.2.3.b, Impact AG-1, second paragraph: The description of the temporary water facilities proposed in the utility corridor is incorrect. Please revise the first sentence as follows: “Development activities associated with the proposed project that could affect ‘Prime Farmland’ or ‘Unique Farmland’ would be limited to the installation of temporary water infrastructure (including pumping facilities and an above-ground <u>water pipeline, portions of which would be above and below ground</u>) associated with transporting water from existing Ag Well #2 (as shown in Figure 2-4s in Section 2.0, <i>Project Description</i>) to the project site.” | 16.18 |
| 18. | Section 4.2 (Agriculture) | 4.2-10 | | Section 4.2.3, Impact AG-3, last paragraph: The first and second sentence should be revised to more accurately describe the proposed project and associated APMs, as follows: “The proposed project contains design features <u>(i.e., applicant proposed measures (APMs))</u> intended to minimize the potential temporary impacts associated with project construction and thereby limit potential secondary effects to adjacent agricultural uses. Applicable measures include the implementation of Best Management Practices (BMPs) during project construction, including <u>providing on-going coordination with the adjacent property owners concerning construction activities (APM-2),</u> installing mud shakers and/or rumble strips to limit the transport of invasive species <u>(APM-3),</u> implementing applicable SWPPP and erosion control measures <u>(APM-7),</u> implementing a dust control plan to minimize fugitive dust emissions <u>(APM-4),</u> developing a hazardous materials response plan <u>(APM-6),</u> and implementing a post-construction restoration and revegetation plan <u>(APM-5).</u> ” | 16.19 |
| 19. | Section 4.2 (Agriculture) | 4.2-11 | | Section 4.2.3, Impact AG-3, Mitigation Measures: The second sentence should be revised to more accurately describe the proposed project and associated APMs, as follows: “Although the impact would be less than significant without mitigation, <u>the implementation of proposed APMs, as well as measures AQ-2a ...</u> ” | 16.20 |

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| 20. | Section 4.3 | 4.3-1, 4.3-25 | TABLE 4.3-1 | Impact AQ-2: The “Residual Impact” column states that the air quality impact calculations with mitigation included mitigation measures typically required by CARB and MBUAPCD for NOx, particularly Tier III engines. However, the use of Tier III engines is not specifically identified as a mitigation measure for Impact AQ-2. The requirement to use Tier III engines is acceptable to the Applicant so long as there is a minimum horsepower threshold and flexibility for commercial availability of equipment with Tier III engines for use on the proposed project. We suggest adding a new sentence to AQ-2 that states: <u>“The project applicant shall use Tier III engines in heavy construction equipment greater than 50 horsepower to the extent commercially available in the regional area.”</u> | 16.21 |
| 21. | Section 4.3 | 4.3-1, 4.3-25 | TABLE 4.3-1 | Impact AQ-2(a): The third bulleted item in Mitigation Measure AQ-2(a) should be revised to provide additional flexibility to move water for dust control to areas where earth-disturbing work is being performed. In addition, the use of temporary pipelines will not reduce the fill time for water trucks, as pipelines do not affect flow-rate directly. Please revise the measure as follows: <u>“In order to avoid long distances and associated travel time between source wells and the work area, the project applicant shall employ the use of on-site temporary pipelines, stand tanks or other measures to reduce water truck travel on unstable, disturbed surface to move water to the current work area and thereby reduce fill times for water trucks;”</u> | 16.22 |
| 22. | Section 4.3 | 4.3-2, 4.3-26 | TABLE 4.3-1 | Impact AQ-2(a): The eighth bulleted item in Mitigation Measure AQ-2(a) should be revised to focus on controlling dust generated when heavy construction equipment travels on roads that have not been stabilized rather than all dirt roads. Dirt roads that have been stabilized as part of project construction will not be sources of dust emissions and therefore would not need water trucks to mitigate dust emissions. Please revise the measure as follows: <u>“Heavy construction equipment traveling on dirt unstabilized roads on the project site shall be preceded by a water truck to dampen roadways and reduce dust from transportation along on-site dirt such roads;”</u> | 16.23 |
| 23. | Section 4.3 (Air Quality) | 4.3-2 to 3-3 & 4.3-26 | TABLE 4.3-1 | Impact AQ-2: The mitigation measure referred to in the tenth bulleted item should be revised to provide greater clarity as to when and where Restoration and Revegetation Plan should be implemented. In addition, schedules for conducting revegetation for habitat mitigation as compared to revegetation for dust mitigation may conflict. The Restoration and Revegetation Plan would contain the directions for when and where implementation would occur. Please revise the measure as follows: <u>“Restoration and Revegetation Plan [refer to Biology Mitigation Measure B-2(b)] shall be implemented as soon as possible following completion of any soil disturbing activities to contribute to stabilization of disturbed soil surfaces.”</u> | 16.24 |

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| 24. | Section 4.3 (Air Quality) | 4.3-5 to 3-6 & 4.3-33 to 3-34 | TABLE 4.3-1 | <p>Impact AQ-6, Mitigation Measure AQ-6(a): The proposed Valley Fever mitigation measure AQ-6(a) is overly protective relative to the level of potential impacts under Impact AQ-6. Monterey County is not a high-risk area for Valley Fever, as indicated by the Centers for Disease Control’s designation of the County as a “suspected endemic” area, which is the lowest risk ranking that the agency assigns to areas that may have Coccidioides fungus present. Moreover, none of the recent EIRs prepared by the County identify Valley Fever as a potential impact from dust generated during construction of those projects, nor identify mitigation measures to lessen Valley Fever impacts that could result.</p> <p>The proposed revisions to measures that may be included in the VFMP incorporate the engineering controls that have been proven to be effective to reduce worker exposure to dust potentially containing Coccidioides spores at other solar facilities under construction in endemic areas in the State, including the Topaz Solar Project in San Luis Obispo County. The applicant proposes a number of engineering controls, such as phasing work schedules, stabilizing disturbed soil as soon as possible, and providing workers with respirators and/or suitable coveralls if needed after performing a job hazard analysis. The applicant also proposes a number of measures relating to ensuring that subcontractors working on the project implement the VFMP with respect to their workers. The applicant would regularly audit the subcontractors’ compliance with the VFMP and report the results to the County Health Department and Planning Department. As proof of the effectiveness of these measures, not a single case of occupationally related Valley Fever has been reported by a worker at one of the applicant’s parent company projects in California in the last 12 months, a period in which approximately 8.2 million man-hours of work has been performed at these sites. Therefore, revise measure AQ-6(a) as follows:</p> <p><u>“The project applicant shall identify and retain a licensed occupational medicine physician (M.D.) with significant pulmonary epidemiology experience to assist the applicant, in consultation with the Monterey County Health Department (Health Officer), the MBUAPCD, and the California Occupational Safety and Health Administration (Cal/OSHA) Compliance Program to develop a Valley Fever Management Plan (VFMP) that includes specific measures to reduce the potential for exposure to Valley Fever. Prior to issuance of grading permits, the applicant shall submit the VFMP to the Monterey County Health Department, RMA – Planning Department for review and approval. The VFMP shall include a program to evaluate the potential for exposure to Valley Fever from construction activities and to identify appropriate dust</u></p> |

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| | | | | <p>management and safety procedures that shall be implemented, as needed, to minimize <u>worker personnel and public exposure to potential Valley Fever-containing dust potentially containing the Coccidioides spore</u>. Measures in the <u>VFMP Valley Fever Management Plan</u> may include the following, which shall be implemented as applicable, may include the following:</p> <ul style="list-style-type: none"> • Provide HEPA-filtered air-conditioned enclosed cabs on heavy equipment. Train workers on proper use of cabs, such as turning on air conditioning prior to using the equipment. • Provide communication methods, such as two-way radios, for use in enclosed cabs. • Provide National Institute for Occupational Safety and Health (NIOSH)-approved respirators for workers. • Conduct a job hazard analysis in compliance with Cal/OSHA regulations for any worker that will be exposed to dust. • Require <u>National Institute for Occupational Safety and Health (NIOSH)-approved half-face respirators equipped with N-100 or P-100 filters to be used during any worker collocation with surface disturbance activities</u>digging if determined to be <u>needed</u>warranted after conducting a <u>based upon the applicable job hazard analysis</u>. • <u>To the maximum extent practicable, phase work efforts to assure that site preparation work involving significant surface disturbance (i.e., grading, filling, trenching) and work that does not involve significant surface disturbance is not collocated to the extent that dust potentially generated by high winds coupled with disturbed soil instability will not impact workers or other receptors.</u> • Require employees to wear respirators when working near earth-moving machinery if determined to be warranted after conducting a job hazard analysis. • <u>Cause employees</u>Workers that are required to use respirators as determined by a job hazard analysis will <u>to be medically evaluated, fit-tested, and properly trained on the use of the respirators, and implement a full a respiratory protection program will be implemented</u> in accordance with the applicable Cal/OSHA Respiratory Protection Standard (8 CCR 5144). • <u>To the maximum extent practicable, ensure that areas involving significant</u> |

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| | | | | <p><u>surface disturbance are stabilized as immediately as possible following all such activities.</u></p> <ul style="list-style-type: none"> ● Provide separate, clean eating areas with hand washing facilities. ● Thoroughly clean construction tools, equipment, and vehicles with water before they are moved offsite to other work locations. ● Wheel washing facilities with water recycling systems shall be provided at all site egress points. Vehicles leaving the site on a daily basis shall utilize wheel washing facilities in order to reduce dust migration off the project site. Equipment inspection and washing stations shall be established and manned at each construction equipment access/egress point. Spot examination of construction equipment for water washing via portable equipment in accordance with SWPPP BMPs will be performed in order to prevent track-out and transport of material potentially the Coccidioides spore. ● On-site workers shall be required to change clothes after work every day before leaving the work site, to prevent distribution of Coccidioides to non-endemic areas. As an alternative, disposable Tyvek® or equivalent work suits and work boots for use on-site shall be provided for workers. Suitable coveralls and change facilities shall be made available to workers performing work in areas where fresh ground disturbance present a risk of exposure to the Coccidioides spore, as determined to be needed based upon the applicable job hazard analysis. ● <u>Establish sub-contract language clearly indicating that all subcontractors of their obligations to comply fully with the meaning and intent of Title 8 California Code of Regulations §§ 5141 and 5144, subject to audit and contract enforcement by the applicant.</u> ● <u>Establish and execute auditing protocols to ensure subcontractor compliance with all provisions of the VFMP and provide monthly audit summary data, potential deviations noted and corrective actions implemented to the Monterey County Department of Health and the Monterey County RMA – Planning Department.</u> ● <u>Each primary employer of contracted workers will be require by the terms and conditions of their contract for services to retain and consult with an Occupational Medicine Professional, licensed by either the Medical Board of California or the Osteopathic Board of California, Work with a medical professional to develop a</u> |

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| | | | | protocol to medically evaluate <u>their employees</u> who develop symptoms of Valley Fever. Reporting of symptoms of Valley Fever and diagnosed cases of Valley Fever must occur consistent with <u>County and State Cal/OSHA</u> requirements.” | 16.25 |
| 25. | Section 4.3-3 (Air Quality) | 4.3-6 to 3-7 & 4.3-34 | TABLE 4.3-1 | Impact AQ-6, Mitigation Measure AQ-6(b): For the reasons cited in Comment 24 above, please revise the last sentence in measure AQ-6(b) as follows: “The Final Construction Management Plan shall be submitted to the County of Monterey RMA-Planning for review and approval prior to the issuance of any grading permit prior to commencing ground disturbing activities.” | 16.26 |
| 26. | Section 4.3-3 (Air Quality) | 4.3-7 to 3-8 & 4.3-35 | TABLE 4.3-1 | Impact AQ-6, Mitigation Measure AQ-6(d): For the reasons cited in Comment 24 above, please revise the fourth sentence in measure AQ-6(d) as follows: “Prior to initiating any grading, the project applicant shall provide the Monterey County RMA – Planning Department and the County of Monterey Environmental Health Bureau <u>Monterey County Health Department</u> with copies of all educational training material for review and approval. “ | 16.27 |
| 27. | Section 4.3-3 (Air Quality) | 4.3-8 & 4.3-35 | TABLE 4.3-1 | Impact AQ-6, Mitigation Measure AQ-6(e): For the reasons cited in Comment 24 above, please revise the fourth sentence in measure AQ-6(d) as follows: “The applicant shall work with a medical professional, in consultation with the <u>Monterey County Health Department</u> , to develop an educational handout for on-site workers and surrounding residents within three miles of the project site, and include the following information on Valley Fever: what are the potential sources/ causes, what are the common symptoms, what are the options or remedies available should someone be experiencing these symptoms, and where testing for exposure-infection is available. Prior to construction permit issuance, this handout shall have been created by the applicant and reviewed by the County. No less than 30 days prior to any <u>grading work</u> commencing, this handout shall be mailed to all existing residences within three miles of the project boundaries. ” | 16.28 |
| 28. | Section 4.3-3 (Air Quality) | 4.3-21 | | Section 4.3.3.a, Decommissioning Emissions, second paragraph: The Draft EIR does not acknowledge that the project includes APMs to address the potential environmental effects associated with project decommissioning. Please insert the following sentence after the last sentence in the paragraph: “ <u>As described in Section 2.0, Project Description, the project includes APM-1 to ensure that all potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.</u> ” | 16.29 |

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| 29. | Section 4.3-3 (Air Quality) | 4.3-24 | | Section 4.3.3.b, Impact AQ-2, Total Short-Term Construction Emissions: This paragraph should contain a reference to the APMs the applicant has proposed to reduce temporary construction emissions. Please insert the following sentences after the first sentence in the last paragraph: <u>“The proposed project includes a number of APMs intended to reduce potential environmental effects associated with construction of the proposed project, including temporary air quality emissions. Nevertheless, temporary construction-related emissions would still exceed applicable MBUAPCD thresholds of significance.”</u> | 16.30 |
| 30. | Section 4.3-3 (Air Quality) | 4.3-32 | | Section 4.3.3.b, Impact AQ-5, first paragraph: The analysis of potential odor-related impacts should be clarified to more clearly identify the nature of potential impacts to adjacent sensitive receptors. Please revise the second sentence as follows: <u>“There are two residences located within 1,000 feet of the project site, and due to the proximity of these receptors to construction-related activities, size of the project site,</u> these residences would only be exposed to construction activity for a relatively short portion of the total construction schedule.” | 16.31 |
| 31. | | | | Section 4.3.3, Impact AQ-6, second paragraph: The cases of Valley Fever that occurred at the Topaz Solar Farm project were determined to be non-occupational. In other words, the constructions workers that contracted Valley Fever did not contract it as a result of working on the Topaz project. The reality is that every person that resides in or passes through an area with endemic Coccidioides fungus in the soil is going to be exposed to the Coccidioides spore as a result of breathing in dust particles, as these cases show. Please add the following sentence to the end of the second paragraph: <u>“The reported cases at the Topaz Solar Project were determined to be non-occupational!”</u> | 16.32 |
| 32. | Section 4.3-3 (Air Quality) | 4.3-32 | | 4.4.3.b, Impact AQ-6, last paragraph: The analysis should include references to applicable APMs that will reduce potential adverse environmental impacts. Please revise the second sentence as follows: <u>“As described in Section 2.0, Project Description, the project would implement a variety of APMs to minimize the potential adverse environmental effects associated with the project, as well as BMPs throughout project construction, including rumble strips at the project site exit (for vehicles leaving the site on a daily basis), washing of large equipment, if warranted, before it is removed from the project site, internal watering of unpaved roadways, implementation of a dust control plan to minimize fugitive dust and potential erosion-related impacts, and post-construction revegetation that would reduce potential Valley Fever hazards.”</u> | 16.33 |
| 33. | Section 4.3-3 (Air Quality) | 4.3-36 | | 4.4.3.b, Impact AQ-7, second full paragraph. The last sentence in the second paragraph states that decommissioning impacts could be significant due to impacts AQ-2 (emissions), AQ-4 (sensitive receptors), AQ-5 (odors) and AQ-6 (Valley Fever). However, this is inconsistent with Draft EIR’s | 16.34 |

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| | | | | conclusions that impacts AQ-4 and AQ-5 are less than significant without mitigation, and the conclusion that impact AQ-6 is not significant with mitigation. To correct this inconsistency, the last sentence should be revised as follows: “However, due the potential for decommissioning-related impacts to regional air quality, including temporary air pollutant emissions (as discussed in Impact AQ-2), exposure of sensitive receptors to substantial pollutant concentrations (as discussed in Impact AQ-4), odors (as discussed in Impact AQ-5), and unmitigated exposure of sensitive receptors to potential health hazards associated with the Coccidioides fungus (as discussed in Impact AQ-6), this impact would be potentially significant.” | 16.34 |
| 34. | Section 4.4 (Biology) | 4.4-11 | | Section 4.4.2, first paragraph: The discussion in the fifth sentence of the first paragraph requires clarification to explain that the 155-acre UCSA overlaps with the SGFASA. The paragraph explains that acreages have had some discrepancies. If the acreages provided for the various cited parts of the BSA listed just before these statements are added up (4184, 698, and 155), it totals 5,037 acres, not 5,033 as stated. This is because 4 acres overlap between the original UCSA (provided by engineers and discussed in the Utility Corridor addendum) and the SGFASA. Please revise the text to state: The BSA is an area of approximately 5,033 acres consisting of an approximately 4,184-acre study area around the Solar Generating Facility Area, an approximately 698-acre study area around the Access Road and an approximately 155-acre study area around the Utility Corridor <u>USCA (151 acres of which do not overlap with the SGFASA).</u> ” | 16.35 |
| 35. | Section 4.4 (Biology) | 4.4-97 | | Section 4.4.3.b California Condors, first paragraph: The last sentence incorrectly suggests that the construction and operation of the project may increase the amount of carrion from grazing animals or other wildlife that may occur on the project site, which could attract condors to the site. To the contrary, there is no basis to conclude that construction and operation of the project would increase the amount of carrion on the project site over pre-existing baseline levels. Please revise the last sentence as follows: “. . . could attract condor to the site, <u>although construction and operation of the project will not increase the amount of carrion that may be occur on the project over baseline levels.</u> ” | 16.36 |
| 36. | Section 4.4 (Biology) | 4.4-97 to 4-98 | | Section 4.4.3.b, Direct Impacts to California Condors, carryover paragraph: The first sentence incorrectly states that direct impacts “would” include mortality of or injury to California condors. The statement that the project “would” cause these impacts is too definitive because it assumes that such impacts will occur, when in reality that is a speculative conclusion that is not based on facts. It is far from certain that such impacts will occur. Please revise the first sentence as follows: “Direct impacts would <u>would potentially could</u> include mortality or injury of California condors, <u>if present</u> , and loss of foraging habitat.” | 16.37 |

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| 37. | Section 4.4 (Biology) | 4.4-98 | | Section 4.4.3.b, Indirect Impacts to California Condors: The first sentence contains unsupported statements referencing a long-term decline in condor population viability. These statements are in fact contradicted by the analysis later in the same paragraph (and by prior analysis in the discussion of condors), which concludes that the project would result in no indirect impacts to California condors. Therefore, the first sentence should be deleted. | 16.38 |
| 38. | Section 4.4 (Biology) | 4.4-98 | | Section 4.4.3.b, Direct Impacts to Golden Eagles: The statement that the project could disrupt golden eagle nesting behaviors is not supported by the facts. The site does not support nesting habitat or nesting golden eagles. The text should be revised as follows: “Direct impacts to golden eagles could include mortality or injury of individuals, as well as disruption of foraging and nesting behaviors and loss of foraging and nesting habitat, leading to reduced productivity and nestling survival. These impacts would primarily occur during construction of the project, though mortality and injury due to vehicle strikes and electrocution, and nest disturbance/disruption could occur throughout the operational phase of the project.” | 16.39 |
| 39. | Section 4.4 (Biology) | 4.4-107 | | Section 4.4.3.b, Indirect Impacts to California Tiger Salamander: The conclusion regarding indirect impacts is not supported. The paragraph should be revised as follows: “ Indirect impacts to CTS include potential long-term decline in population viability within the project site over the life of the project. Indirect impacts to CTS are not expected to occur because no CTS have been detected on site, <u>no breeding habitat will be impacted and upland impacts will not be severe enough to result in a long-term decline in population viability at the project site should CTS be present.</u> ” | 16.40 |
| 40. | Section 4.4 (Biology) | 4.4-108 | | Section 4.4.3.b, California Red-legged Frog, fourth paragraph: The discussion of permanent impacts to CRLF within the SDAs requires clarification. The SDAs are considered to be part of the permanent impact area calculation, even though habitat value will remain after construction. This detail is unclear in the current text. Please revise the last sentence as follows: “ However, those areas of the SDAs not permanently impacted (e.g., grassland habitat beneath the solar arrays) Although considered permanently impacted for the purposes of analysis, grassland habitat beneath the solar arrays will be available for CRLF use after construction.” | 16.41 |
| 41. | Section 4.4 (Biology) | 4.4-115 | | Section 4.4.3.b, Indirect Impacts to California Red-legged Frog: The conclusion regarding indirect impacts is not supported. The paragraph should be revised as follows: “ Indirect impacts to CRLF include potential long-term decline in population viability within the project site over the life of the project. Indirect impacts on CRLF could occur due to sedimentation of aquatic habitats or changes in <u>water quality. Other indirect impacts may include changes to predation pressure or prey populations in upland dispersal habitat due to facility maintenance and management.</u> ” | 16.42 |

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| 42. | Section 4.4 (Biology) | 4.4-115 | | Section 4.4.3.b, Impact Significant for California Red-legged Frog: The statement that CRLF breeding habitat will be degraded and lost is incorrect. Breeding habitat will not be affected. The paragraph should be revised as follows: “Because of the regional rarity of this species, potential increased mortality of CRLF and degradation and loss of their breeding and non-breeding aquatic habitats and upland dispersal habitats would be considered <i>Class II, significant but mitigable.</i> ” | 16.43 |
| 43. | Section 4.4 (Biology) | 4.4-115 | | Section 4.4.3.b, Indirect Impacts to Western Pond Turtle: The conclusion regarding indirect impacts is not supported. The paragraph should be revised as follows: “ Indirect impacts to western pond turtles include long term decline in population viability within the project site over the life of the project. Indirect impacts on western pond turtle could occur due to sedimentation of aquatic habitats or changes in water quality, which could affect aquatic prey resources. Other indirect impacts may include changes to predation pressure due to facility maintenance and management.” | 16.44 |
| 44. | Section 4.4 (Biology) | 4.4-116 | | Section 4.4.3.b, Western Spadefoot, San Joaquin Coachwhip, and Coast horned lizard, first paragraph: The Utility Corridor is missing from the description of potential habitat areas, although it is listed in Table 4.4-4. The first sentence should be revised as follows: “San Joaquin coachwhip has been observed in the project impact area, and western spadefoot and coast horned lizard have the potential to occur within the Solar Generating Facility Area and along the Access Road, <u>and western spadefoot and coast horned lizard have the potential to occur within the Solar Generating Facility Area, along the Access Road, and in the Utility Corridor.</u> ” | 16.45 |
| 45. | Section 4.4 (Biology) | 4.4-116 | | Section 4.4.3.b, Indirect Impacts to Western Spadefoot, San Joaquin Coachwhip, and Coast horned lizard: The conclusion regarding indirect impacts is not supported. The paragraph should be revised as follows: “ Indirection impacts to western spadefoot, San Joaquin coachwhip and coast horned lizard include a potential long term decline in population viability of these species within the project site over the life of the project. Increased predatory pressure due to the availability of addition raptor perches would also be an indirect impact to these species. Indirect impacts on western spadefoot, San Joaquin coachwhip, and coast horned lizard could potentially occur due to increased predation pressure, <u>facilitated by the installation of structures that can be used as raptor perches and lighting that illuminates nocturnal species.</u> Human activities could result in the introduction of non-native ant species that displace native ant species, which are the primary prey of coast horned lizards. Indirect impacts on western spadefoot could occur if surface flows are disrupted such that they affect wetland hydrology or ponding. Erosion and sedimentation from construction could affect the water quality of <u>western spadefoot breeding pools.</u> ” | 16.46 |

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| 46. | Section 4.4 (Biology) | 4.4-118 | | Section 4.4.3, Indirect Impacts to Vernal Pool Branchiopods: The conclusion regarding indirect impacts is not supported. The paragraph should be revised as follows: “Indirect impacts to vernal pool branchiopods would include the long term decline in regional population viability due to loss of individuals and habitat. Indirect impacts on vernal pool branchiopods would include changes in hydrology, the contributing watershed, and water quality, that could indirectly affect vernal pool habitat; but these impacts are expected to be minimal due to the extent and location of limited site grading.” | 16.47 |
| 47. | Section 4.4 (Biology) | 4.4-118 | | Section 4.4.3.b, Mitigation Measure B-1(a), Nested Compensatory Mitigation: The requirement in the fifth sentence in the first paragraph of Mitigation Measure B-1(a) that conservation lands contain verified extant populations is in conflict with the mitigation measures for individual species and the Land Acquisition Requirements set forth in the Draft EIR and is not required by U.S. Fish and Wildlife Service and CDFW guidance. First, the compensatory mitigation measures for individual species make clear that, except in the context of certain special status plant species, compensatory habitat is required to be of equal or greater habitat value – not to contain verified extant populations. See, e.g., MM B-1(j) SJKF (compensatory mitigation must comprise “habitat of equal or greater value”); MM B-1(z) CRLF (compensatory mitigation must provide “equal or greater habitat value”). Second, the Land Acquisition Requirements specify that mitigation habitat must be of equal or greater value to the impacted area and provide that this may be met with “suitable habitat” or habitat that can be enhanced to provide suitable habitat (i.e., “enhanced habitat”). See 4.4-119-120. The Land Acquisition Requirements do not require occupied habitat. Requiring compensatory mitigation that has “verified extant populations” of the impacted species would also create a disproportionate requirement in relation to the project’s impacts since populations of several species do not occur on the project site but, rather, the site serves only as potentially suitable habitat. See, e.g., SJKF impacts discussion (species may occasionally use project site but the site does not support a population of SJKF). Accordingly, the fifth sentence of Mitigation Measure B-1(a) should be deleted, as follows: “Areas proposed for preservation and serving as compensatory mitigation for special status species impacts must contain verified extant populations of the special status species that would be impacted by the project.” | 16.48 |
| 48. | Section 4.4 (Biology) | 4.4-119 | | Section 4.4.3.b, Mitigation Measures B-1(a) b), Nested Compensatory Mitigation: As written, the County is redundantly performing a determination that will be performed by the easement holder and reviewed for adequacy by the Wildlife Agencies. The last sentence of the second paragraph should be revised, as follows: The amount of these administrative and stewardship fees shall be determined by | 16.49 |

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| | | | | the conservation easement holder in consultation with the County. The project proponent shall provide the County with documentation that the administrative and stewardship fees have been paid and that the conservation easement holder has determined the amount paid is sufficient. | 16.49 |
| 49. | Section 4.4 (Biology) | 4.4-121 | | Section 4.4.3.b, Mitigation Measures B-1(a) b), Nested Compensatory Mitigation: The standard Wildlife Agency timeframe to complete recording of a conservation easement is 18 months. The first complete sentence in the first paragraph should be revised, as follows: Documentation of recorded easement(s) shall be submitted to and approved by the County prior to the first of the project’s final inspections, or within 18 months after issuance of grading permits, whichever comes first. | 16.50 |
| 50. | Section 4.4 (Biology) | 4.4-125 | | Section 4.4.3.b, Mitigation Measures B-1(e), Compensatory Mitigation for Special Status Plant Species: The timing of the impact acreage calculation requires clarification to allow for phasing of project construction. The mitigation timing should allow for phasing of project construction, and, correspondingly, should allow for the total acreage of mitigation required for each phase of construction to be determined before the grading permit is issued for that phase. Please revise the first sentence of Mitigation Timing paragraph as follows: “Identification of the total number of plants and acreage for mitigation must be submitted to the county prior to the issuance of grading permits.” <u>Identification of the total number of plants and acreage for mitigation must be submitted to the County prior to the issuance of grading permits, or prior to the issuance of the grading permit for each phase of the project, should the project be phased.”</u> | 16.51 |
| 51. | Section 4.4 (Biology) | 4.4-126 | | Section 4.4.3.b, Mitigation Measures B-1(g), American Badger Avoidance and Minimization, first full paragraph: The current text does not allow for modification of potential den buffers within 500 feet of active construction. The current text may therefore cause buffers to intrude into active construction zones. The measure should be revised to allow flexibility in buffer width while ensuring adequate species protection. Please insert the following sentence at the end of the paragraph: <u>“Buffers may be modified by the qualified biologist, provided the potential dens are protected.”</u> | 16.52 |
| 52. | Section 4.4 (Biology) | 4.4-128 | | Section 4.4.3.b, Mitigation Measure B-1(i), San Joaquin Kit Fox Den Avoidance and Minimization Measures, Construction Phase: The last sentence under item 7 establishes a timeframe for reporting to the USFWS and CDFW that may differ from that specified in the federal and state incidental take permits that the Applicant is seeking. This will create an added burden on the Applicant without adding any environmental benefit. The text should be revised to establish a reporting timeframe that is consistent with reporting to the USFWS and CDFW required under the federal and state incidental take permits. Please revise the last sentence under item 7 as follows: <u>“All authorized reductions to restrictive buffer areas must be reported in writing to the USFWS and CDFW within 24 hours of</u> | 16.53 |

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| | | | | implementing the change per the requirements in the federal and state incidental take permits, if applicable.” | |
| 53. | Section 4.4 (Biology) | 4.4-131 | | Section 4.4.3.b, Mitigation Measure B-1(i), San Joaquin Kit Fox Den Avoidance and Minimization Measures, Operations Phase/Extended Activities: The sentence in the middle of the page above item 1 should be revised so that it is clear that the timing of the procedures to minimize impacts on known dens are applicable to all phases of project construction. Please revise this sentence as follows: <u>“During all phases of the project, construction, operation, and decommissioning phases, the applicant shall minimize impacts on known dens through the following procedures:”</u> | 16.54 |
| 54. | Section 4.4 (Biology) | 4.4-133 | | Section 4.4.3.b, Mitigation Measure B-1(i), San Joaquin Kit Fox Den Avoidance and Minimization Measures, Mitigation Timing: Surveys and implementation of avoidance measures should occur no more than 30 days prior to the start of ground disturbance, not prior to issuance of the grading permits. Active construction may not begin immediately upon issuance of the grading permits. Therefore, tying the preconstruction surveys to the permits instead of to active construction may allow SJKF to move into construction areas during offsite mobilization, causing impacts. Please revise the first sentence as follows: <u>“The applicant shall submit documentation to the County that either no occupied SJKF dens were recorded on the project site, or that appropriate avoidance measures have been implemented to ensure avoidance of occupied or active breeding dens prior to issuance of grading permits. The applicant shall submit documentation to the County that either no occupied San Joaquin kit fox dens were recorded on the project site, or that appropriate avoidance measures have been implemented to ensure avoidance of occupied or active breeding dens prior to the start of active construction.”</u> | 16.55 |
| 55. | Section 4.4 (Biology) | 4.4-133 | | Section 4.4.3.b, Mitigation Measure B-1(j), Compensatory Habitat Mitigation for San Joaquin Kit Fox, Mitigation Timing: The timing of the impact acreage calculation requires clarification to allow for phasing of project construction. The mitigation timing should allow for phasing of project construction, and, correspondingly, should allow for the total acreage of mitigation required for each phase of construction to be determined before the grading permit is issued for that phase. Please revise the first sentence of the Mitigation Timing paragraph as follows: <u>“Identification of the total acreage for mitigation of San Joaquin kit fox must be submitted to the county prior to the issuance of grading permits. All identification of the total number of acreage for mitigation of San Joaquin kit fox impacts must be submitted to the County prior to the issuance of grading permits, or prior to the issuance of the grading permit for each phase of the project, should the project be phased.”</u> | 16.56 |

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| 56. | Section 4.4 (Biology) | 4.4-134 | | <p>Section 4.4.3.b, Mitigation Measure B-1(l), Preconstruction Surveys for Burrowing Owl, Mitigation Timing/Monitoring: Mitigation timing and monitoring requirement should be revised to tie the preconstruction surveys to initial ground disturbing activities, as detailed in the first paragraph of Mitigation Measure B-1(l), rather than to issuance of grading permits. Active construction may not begin immediately upon issuance of the grading permits. Therefore, tying the preconstruction surveys to the permits instead of to active construction may allow burrowing owl to move into construction areas during offsite mobilization, causing impacts. Please revise this paragraph as follows: “Mitigation Timing: The applicant will contract for preconstruction burrowing owl surveys to be conducted prior to construction of the project and shall submit documentation to the County that surveys have been completed prior to the start of initial ground-disturbing activities. Monitoring: The County shall ensure that the surveys are completed prior to issuing grading permits applicant is in compliance with all burrowing owl impact avoidance and minimization measures.”</p> |
| 57. | Section 4.4 (Biology) | 4.4-137 | | <p>Section 4.4.3.b, Mitigation Measure B-1(n), Compensatory Habitat Mitigation for Burrowing Owl: The compensatory mitigation specified in this measure should be revised to reflect the County’s application of CDFW’s guidance pursuant to the Staff Report on Burrowing Owl Mitigation (CDFW, 2012) and to set compensatory mitigation for all impacted project lands at a uniform 2:1 ratio. Under CDFW’s guidance, mitigation should be required by the CEQA lead agency to address project-specific impacts or, in the alternative, the lead agency may consult with CDFW. Here, the applicant has proposed an overall mitigation ratio of 2:1 for the final Project footprint, which is well beyond prior CDFW guidance which recommended 6.5 acres for each impacted pair of burrowing owl. In addition, the mitigation timing language should be revised to allow project phasing, consistent with other compensatory mitigation measure revisions. Accordingly, we request the revision of to the first two paragraphs and the fourth paragraph of this mitigation measure as follows:</p> <p>“Compensatory Habitat Mitigation for Burrowing Owl. To mitigate for the loss of burrowing owl habitat from the installation of all new facilities, except the SDAs, the applicant shall provide compensatory mitigation acreage, adjusted to reflect the final Project footprint at a minimum of 32:1 ratio (preserved habitat: affected habitat). The compensatory mitigation must provide equal or greater habitat value than the project site, <u>and would compensate for any permanent loss of burrowing owl habitat, consistent with the Staff Report on Burrowing Owl Mitigation (CDFW, 2012).</u></p> <p>To mitigate for the impacts to burrowing owl habitat within the SDAs, the project Proponent shall</p> |

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| | | | | <p>provide compensatory mitigation acreage, adjusted to reflect the final footprint of the SDAs in consultation with CDFW, but at a minimum of 2:1 ratio. All compensatory mitigation must comprise habitat of value equal to, or greater than, the project site.</p> <p>Mitigation Timing: Identification of the total acreage for mitigation of burrowing owl must be submitted to the county prior to the issuance of grading permits, <u>or prior to the issuance of the grading permit for each phase of the project, should the project be phased.</u> All other timing shall be consistent with measure B-1(a).”</p> | 16.58 |
| 58. | Section 4.4 (Biology) | 4.4-138 | | <p>Section 4.4.3.b, Mitigation Measure B-1(q), Bat Preconstruction Surveys and Avoidance, second paragraph: The second sentence specifying buffers around maternity roosts or hibernacula should be revised to provide greater construction flexibility and enhanced species protection. The ESA avoidance buffer should be determined based on species biology, the occurrence of nighttime work, disturbance levels, noise levels, and exhaust levels. Please revise the second sentence as follows: “A minimum 100-foot ESA avoidance buffer <u>(or as designated by the qualified bat biologist based on the species biology and the current and anticipated disturbance levels occurring in vicinity of the roost)</u> shall be demarcated by highly visible orange construction fencing around active maternity roosts.”</p> | 16.59 |
| 59. | Section 4.4 (Biology) | 4.4-139 | | <p>Section 4.4.3.b, Mitigation Measure B-1(q), Bat Preconstruction Surveys and Avoidance, Mitigation Timing: The mitigation timing requires revision to ensure adequate species protection. The current text states that surveys and avoidance measures must be completed prior to obtaining grading permits, but the mitigation measure requires that some surveys be conducted no more than 30 days before the start of construction. Active construction may not begin immediately upon issuance of the grading permits. Therefore, tying the preconstruction surveys to the permits instead of to active construction may allow bats to move into construction areas during offsite mobilization, causing impacts. Please revise the Mitigation Timing as follows: “The applicant shall submit documentation to the County that either no special status bats were recorded on the project site, or that appropriate avoidance measures have been implemented to ensure avoidance of impacts on special status bats prior to issuance of grading permits <u>ground disturbance.</u>”</p> | 16.60 |

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| 60. | Section 4.4 (Biology) | 4.4-139 | | Section 4.4.3.b, Mitigation Measure B-1(r), Preconstruction Surveys for Raptors and Other Special Status Bird Species, first paragraph: The timing of preconstruction surveys requires revision to ensure adequate species protection. Conducting breeding bird surveys “not less than 30 days prior to the initiation of construction,” as called for in the first sentence, creates a high probability that surveyors will miss nesting birds because many avian species can build a nest and lay eggs in less than 30 days. Please revise the first sentence as follows: “Not less <u>more</u> than 30 days prior to initiation of construction activities (incl. mobilization . . .” | 16.61 |
| 61. | Section 4.4 (Biology) | 4.4-140 | | Section 4.4.3.b, Mitigation Measure B-1(r), Preconstruction Surveys for Raptors and Other Special Status Bird Species: Criteria for reducing the buffer is already provided and as such, this consultation requirement is unnecessary. The first sentence of the first full paragraph should be revised as follows: “For golden eagle nests identified during the preconstruction surveys, an avoidance buffer of up to one mile shall be established on a case-by-case basis <u>by a qualified ornithologist in consultation with the USEWS</u> , and shall depend on the existing conditions and . . .” | 16.62 |
| 62. | Section 4.4 (Biology) | 4.4-140 | | Section 4.4.3.b, Mitigation Measure B-1(r), Preconstruction Surveys for Raptors and Other Special Status Bird Species, Mitigation Timing: The current text states that surveys and avoidance measures must be completed prior to obtaining grading permits, but the mitigation measure should require (see above Comment 60 that surveys be conducted no more than 30 days before the start of construction. Active construction may not begin immediately upon issuance of the grading permits. Therefore, tying the preconstruction surveys to the permits instead of to active construction may allow birds to move into construction areas during offsite mobilization, causing impacts. Please revise the Mitigation Timing as follows: “The applicant shall submit documentation to the County that either no raptors or other special status birds were recorded on the project site, or that appropriate avoidance measures have been implemented to ensure avoidance of impacts on raptors and other special status birds prior to issuance of grading permits <u>initiation of construction activities.</u> ” | 16.63 |
| 63. | Section 4.4 (Biology) | 4.4-141 | | Section 4.4.3.b, Mitigation Measure B-1(s), Special Status Bird Species Impact Avoidance and Minimization: The description of grading permits and the timing of design in the paragraph above “Mitigation Timing” requires clarification and specificity to ensure adequate species protection. The APLIC guidelines should be tied to the project design plans that incorporate the guidelines, such as the construction plans and/or electrical plans. These plans may not be fully developed by the time the grading permits are issued; thus, the plans should not be tied to those permits. Please revise the second sentence in the paragraph as follows: “Details of design components shall be indicated on all construction plans. The applicant shall monitor for new versions of the APLIC guidelines and update | 16.64 |

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| | | | | designs or implement new measures as needed during Project construction, provided these actions do not require the purchase of previously ordered transmission line structures. <u>The applicant shall submit documentation to the County that avian impact avoidance and minimization features have been incorporated into the project design prior to issuance of construction or electrical permits that incorporate the guidelines.</u> | 16.64 |
| 64. | Section 4.4 (Biology) | 4.4-141 | | In response to feedback received from stakeholders regarding avian mortality, the Applicant has incorporated a new Applicant Proposed Measure (APM-10) (see Comment 2) to monitor avian use of the site, conduct post-construction avian mortality monitoring and identify conservation measures to minimize impacts. These efforts will be memorialized in a Bird and Bat Conservation Strategy (BBCS) prepared in collaboration with the U.S. Fish and Wildlife Service and will include an Avian Mortality Monitoring Program (AMMP) to monitor operational effects of the project on avian species. The additional of AMP-10 will further reduce potential operational impacts to avian species by providing additional data and additional conservation measures in response to that data. | 16.65 |
| 65. | Section 4.4 (Biology) | 4.4-142 | | Section 4.4.3.b, Mitigation Measure B-1(t), Preconstruction Surveys and Avoidance of Western Pond Turtle, Mitigation Timing: As discussed in prior comments above, the timing of preconstruction surveys should be tied to the commencement of construction rather than the issuance of permits to minimize the chance that aquatic special status species may move into the area after the preconstruction surveys have been completed. Please revise the Mitigation Timing as follows: “The applicant shall submit documentation to the County that no aquatic special status species were recorded on the project site, or that appropriate impact avoidance measures have been implemented to ensure avoidance of aquatic special status species prior to issuance of grading permits <u>the start of construction.</u> ” | 16.66 |
| 66. | Section 4.4 (Biology) | 4.4-143 | | Section 4.4.3.b, Mitigation Measure B-1(u), Preconstruction Surveys and Avoidance of Western Spadefoot, Mitigation Timing: As discussed in prior comments above, the timing of preconstruction surveys should be tied to the commencement of construction rather than the issuance of permits to minimize the chance that western spadefoots may move into the area after the preconstruction surveys have been completed. Please revise the Mitigation Timing as follows: “The applicant shall submit preconstruction survey documentation to the County that no western spadefoots were recorded on the project site, or that appropriate impact avoidance measures have been implemented to ensure avoidance of western spadefoots prior to issuance of grading permits <u>the start of construction.</u> ” | 16.67 |

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| 67. | Section 4.4 (Biology) | 4.4-144 | | <p>Section 4.4.3.b, Mitigation Measure B-1(w), California Tiger Salamander and California Red-Legged Frog Relocation Sites: California red-legged frog (CRLF) is a federally listed species, but is not a California listed species. Therefore, CDFW has no jurisdiction over CRLF mitigation, including relocation. This mitigation measure should be revised to clarify that CDFW consultation and approval regarding CRLF relocation sites is not required. Please revise this paragraph as follows:</p> <p>“Prior to the initiation of any other protective measures, a qualified biologist (i.e., biologist approved by USFWS and/or CDFW to translocate CTS and CRLF) shall, in consultation with USFWS <u>regarding CRLF</u>, and <u>with CDFW and USFWS regarding CTS</u>, identify appropriate relocation sites for any adult, juvenile, and larval CTS and CRLF that may be observed during the pre-construction survey or monitoring activities described below and need to be moved from within the limits of direct impact disturbance.</p> <p>Mitigation Timing: The applicant shall submit to the County documentation that CDFW- and USFWS- approved relocation sites for CTS and <u>USFWS-approved relocation sites for CRLF</u> have been identified prior to issuance of grading permits. Monitoring: The County shall ensure that CDFW- and USFWS- approved relocation sites have been identified by the applicant.”</p> | 16.68 |
| 68. | Section 4.4 (Biology) | 4.4-146 | | <p>Section 4.4.3.b, Mitigation Measure B-1(y), Construction Timing, Preconstruction Surveys and Avoidance Measures for California Red-Legged Frog, first full paragraph: The first full paragraph should be moved in front of the prior paragraph that carries over from page 4.4-145 because the first full paragraph specifies requirements that cannot be carried out if applied to carryover paragraph from page 4.4-145. Specifically, the carryover paragraph specifies CRLF survey and relocation requirements during construction, whereas first full paragraph requires submission of a report that outlines the preconstruction survey results and identifies the number of animals moved prior to construction. Moving the first full paragraph on page 4.4-146 will harmonize the requirements.</p> | 16.69 |
| 69. | Section 4.4 (Biology) | 4.4-146 | | <p>Section 4.4.3.b, Mitigation Measure B-1(y), Construction Timing, Preconstruction Surveys and Avoidance Measures for California Red-Legged Frog, Mitigation Timing: As discussed in prior comments above, the timing of preconstruction surveys should be tied to the commencement of construction rather than the issuance of permits to minimize the chance that aquatic special status species may move into the area after the preconstruction surveys have been completed. Please revise the Mitigation Timing as follows: “The applicant shall submit documentation to the County that no aquatic special status species were recorded on the project site, or that appropriate impact avoidance measures have been implemented to ensure avoidance of aquatic special status species prior to</p> | 16.70 |

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| | | | | issuance of grading permits the start of construction.” | |
| 70. | Section 4.4 (Biology) | 4.4-147 | | Section 4.4.3.b, Mitigation Measure B-1(z), Compensatory Mitigation for California Red-Legged Frog, Mitigation Timing: The mitigation timing language should be revised to allow for phasing of construction of the project. More specifically, the language should be revised so that the total acreage of mitigation required for each phase of construction to be determined before the grading permit is issued for that phase. Please revise the first sentence of the Mitigation Timing language as follows: “Identification of the total acreage for mitigation for California red-legged frog must be submitted to the county prior to the issuance of grading permits, <u>or prior to the issuance of the grading permit for each phase of the project, should the project be phased.</u> ” | 16.71 |
| 71. | Section 4.4 (Biology) | 4.4-147 to 4-148 | | Section 4.4.3.b, Mitigation Measure B-1(aa), California Tiger Salamander Construction Barriers, carryover paragraph: The Utility Corridor should be discussed in the context of work period restrictions for areas not fenced within 0.35 mile of potential CTS breeding ponds. Currently, the Utility Corridor is omitted from the description of project areas where a seasonal restriction will apply because the areas are not fenced; however, the corridor is listed on page 4.4-147 as an area without a barrier fence. Also, a potential breeding pond is located within 0.35 mile of the Utility Corridor. Please revise the second sentence of the carryover paragraph as follows: “... ground-disturbing construction activities along the access road, <u>utility corridor</u> , and transmission line shall be limited to the non-breeding season, to the extent practicable.” | 16.72 |
| 72. | Section 4.4 (Biology) | 4.4-148 | | Section 4.4.3.b, Mitigation Measure B-1(bb), California Tiger Salamander Daily Pre-activity Surveys, Mitigation Timing: Mitigation timing and reporting are referenced in this paragraph are infeasible. The current language requires submitting documentation of daily pre-activity surveys during the winter and spring breeding season during construction in reports per Mitigation Measure B-1(u). However, Mitigation Measure B-1(u) reports must be submitted <u>prior</u> to the start of construction. The correct reporting measure appears to Mitigation Measure B-1(ee). Please revise the Mitigation Timing requirement as follows: “The applicant shall report results of daily pre-activity surveys within the biological monitoring reports required in measure B-1(uee) and submit these reports to the County as described in measure B-1(uee).” | 16.73 |
| 73. | Section 4.4 (Biology) | 4.4-149 | | Section 4.4.3.b, Mitigation Measure B-1(cc), Compensatory Mitigation for California Tiger Salamander, Mitigation Timing: The mitigation timing language should be revised to allow for phasing of construction of the project. More specifically, the language should be revised so that the total acreage of mitigation required for each phase of construction to be determined before the grading permit is | 16.74 |

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| | | | | issued for that phase. Please revise the first sentence of the Mitigation Timing language as follows: <u>“Identification of the total acreage for mitigation for California tiger salamander frog must be submitted to the county prior to the issuance of grading permits, or prior to the issuance of the grading permit for each phase of the project, should the project be phased.”</u> | 16.74 |
| 74. | Section 4.4 (Biology) | 4.4-150 to 4-151 | | Section 4.4.3.b., Mitigation Measure B-1(ee), Construction Biological Monitoring, Mitigation Timing: The current text calls for daily, monthly, and annual reporting. This is overly burdensome and is inconsistent with the frequency of biological monitoring reporting at other projects in Monterey County and at other project sites in the region. A less burdensome, yet equally comprehensive, approach would be to eliminate the daily reporting requirements and instead require that weekly reports be submitted to the Environmental Compliance Manager, and that monthly reports include all daily monitoring data. In addition, to clarify the contents and deadline for submitting the annual report, the text of Mitigation Measure B-1(ff)(19) should be incorporated into this measure. Please revise the second sentence of the Mitigation Timing paragraph as follows: <u>“The applicant shall also report results of daily biological monitoring to the County (through the Environmental Compliance Manager) on a weekly basis, and prepare and submit monthly summary monitoring reports, and annual monitoring reports to the County. During construction, the annual written report shall describe the status of project construction, as well as the compliance and current implementation status of construction-related biological mitigation measures and general biological measures. The report shall be submitted to the County no later than 15 February of the following year.”</u> | 16.75 |
| 75. | Section 4.4 (Biology) | 4.4-154 | | Section 4.4.3.b., Mitigation Measure B-1(ff)(19), Special Status Animal Species General Avoidance Measures and Construction Best Management Practices: In Comment 74 above, the Applicant proposed that Mitigation Measure B-1(ff)(19) be incorporated into the Mitigation Timing measure in Mitigation measure B-1(ee). To the extent that the County makes the revision proposed in Comment 74 above, Mitigation Measure B-1(ff)(19) should be deleted. | 16.76 |
| 76. | Section 4.4 (Biology) | 4.4-154 | | Section 4.4.3.b., Mitigation Measure B-1(ff), Special Status Animal Species General Avoidance Measures and Construction Best Management Practices, Mitigation Timing: Mitigation timing and reporting are incorrectly cross-referenced. The current text refers to reporting per Mitigation Measure B-1(u); however, the correct reporting requirements to which the measure should refer to are in Mitigation Measure B-1(ee). Please revise the Mitigation Timing requirement as follows: <u>“The applicant shall include details on special status animal species, general avoidance measures, and construction BMPs in biological monitoring status reports that are to be submitted to the County as outlined in B-1(uee).”</u> | 16.77 |

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| 77. | Section 4.4 (Biology) | 4.4-157 | | Section 4.4.3.b, Impact B-2, Mixed Oak Woodlands, Temporary Impacts, carryover paragraph: The current text misstates the temporary impacts to mixed oak woodlands. The actual temporary impact to mixed oak woodland will be 0.31 acre, not 0.1 acre as written. In addition, the last sentence in this carryover paragraph incorrectly cites Table 4.4-7 (which concerns CTS acreages). The correct reference is Table 4.4-8. Please revise the last two sentences in the carryover paragraph as follows: “However, temporary impacts to up to 0.31 acres of oak woodlands could occur as a result of activities such as construction access by personnel or equipment, trampling of herbaceous vegetation, materials laydown, or utility trenching. No oak woodlands occur within the Access Road or Utility Corridor impact areas (Table 4.4-78).” | 16.78 |
| 78. | Section 4.4 (Biology) | 4.4-160 | | Section 4.4.3.b, Impact B-2, Perennial Stream Impacts: The references in the first three sentences of this paragraph to the double box culvert should be revised to acknowledge that the double box culvert will not be used and instead a clear span bridge will be used, as discussed in the BRIA Addendum (November 2013 site plan) on page 4 of that document. Please revise the first three sentences as follows: “A new double box culvert is proposed for a crossing of Cottonwood Creek (a perennial stream that supports perennial marsh wetland vegetation [Figure 4.4-2b]) within the project site. Construction of this culvert would constitute a permanent impact to the stream in this location. Temporary impacts would be caused by the access and activities, including localized dewatering, required to construct this crossing. <u>“A new clear-span bridge is proposed for a crossing of Cottonwood Creek (a perennial stream that supports perennial marsh wetland vegetation [Figure 4.4-2b]) within the project site. Construction of this bridge, which will require some rock slope protection on the streambanks associated with the bridge abutments, would constitute a permanent impact on the stream in this location. However, due to the clear-span design, the stream channel bottom will remain a native mud-bottomed habitat.”</u> | 16.79 |
| 79. | Section 4.4 (Biology) | 4.4-160 | | Section 4.4.3.b, Impact B-2, Perennial Stream Impacts: The discussion in the second half of this paragraph regarding the flow capacity of channel crossings should be clarified. The structures that would be needed to handle very large stormflows in this area would cause unnecessary impacts to aquatic resources and would have more capacity than what the current channels provide. Please revise the sixth sentence as follows: “In these areas, pipe culverts large enough to handle stormflows and avoid scour, or channel downcutting, <u>stormflows to at least existing channel capacity, and to avoid scour and channel downcutting,</u> would be installed, along with associated erosion control measures, such as rock weirs and cross vanes, where necessary. “ | 16.80 |
| 80. | Section 4.4 (Biology) | 4.4-169 | | Section 4.4.3.b, Mitigation Measure B-2(c), Mitigation Timing: The requirement that PVIMP be submitted to USFWS and CDFW is not warranted, as neither agency has approval authority over the | 16.81 |

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| | | | | PVIMP. The current text is also inconsistent with text on page 4.4-167, which states, “The PVIMP shall be submitted to the County prior to the notice to proceed, and shall address the entire project site.” Please revise Mitigation Timing as follows: “The PVIMP shall be submitted by the applicant to the County, CDFW, and USFWS for review and approval by the County prior to issuance of grading permits.” | 16.81 |
| 81. | Section 4.4 (Biology) | 4.4-170 | | Section 4.4.3.b, Mitigation Measure B-2(f), Stream Channel Avoidance and Minimization, first paragraph: The flood event requirements cited in this paragraph are out of date. Recent hydrologic analysis of the site determined that, in many cases, designing crossings for even a five-year event would result in unnecessary impacts to aquatic resources, because either the streams would need to be rechannelized or very large bridges or causeways would be needed. Please revise the paragraph as follows: “To prevent high velocity water flow from causing bank downcutting at downstream locations, any improvements related to road realignment, widening, or the ability of the road to convey heavy equipment for construction shall be designed to handle heavy storm flows (up to the 25-year flood event or more), such that undesirable velocities and channel destabilization downstream of the crossing shall be avoided. Recent hydrologic analysis of the site determined that, in many cases, <u>designing crossings for even a five-year event would result in unnecessary impacts to aquatic resources, because either the streams would need to be rechannelized or very large bridges or causeways would be needed.</u> ” | 16.82 |
| 82. | Section 4.4 (Biology) | 4.4-170 | | Section 4.4.3.b, Mitigation Measure B-2(f), Stream Channel Avoidance and Minimization, last paragraph: The box culvert referenced in the first sentence of this paragraph is no longer part of the project design—see Comment 78 regarding the clear-span bridge (page 4.4-160). Please revise the first sentence as follows: “A single crossing, including a new double box culvert or free span bridge, <u>new clear-span bridge shall be installed in Cottonwood Creek.</u> ” | 16.83 |
| 83. | Section 4.4 (Biology) | 4.4-171 to 4-172 | | Section 4.4.3.b, Mitigation Measure B-2(g), Directional Boring Avoidance and Minimization, Mitigation Timing: The requirement that the Frac-out Plan be submitted to CDFW and USACE is unwarranted. If directional boring is found to be required, it will require LSAA approval and separate CDFW review; however, USACE does not regulate directional boring. Please revise the Mitigation Timing requirement as follows: “The Frac-out Plan shall be submitted by the applicant to the County, CDFW, and USACE and approved by the County prior to issuance of grading permits.” | 16.84 |
| 84. | Section 4.4 (Biology) | 4.4-188 | | Section 4.4.3.b, Mitigation Measure B-4(b), Pronghorn-Friendly Fence Design, Mitigation Timing: The current text requires the applicant to submit documentation to the County and CDFW that pronghorn-friendly fence designs has been incorporated into the HMMP prior to issuance of a grading permit. | 16.85 |

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| | | | | However, per Mitigation Measure B-1(b), the HMMP does not need to be submitted and approved until prior to the first of the project’s final inspections, or within 12 months after issuance of the grading permits, whichever comes first. In order to harmonize these requirements, please revise the Mitigation Timing as follows: “The applicant shall submit documentation that to the County and CDFW that pronghorn-friendly fence design has been incorporated into the HMMP prior to issuance of a grading permit the first of the project’s final inspections, or within 12 months after issuance of grading permits, whichever comes first.” | 16.85 |
| 85. | Section 4.4 (Biology) | 4.4-193 | | Section 4.4.3.c, Cumulative Impact Analysis, second paragraph: The first sentence incorrectly states that project could contribute to cumulative impacts to blunt-nosed leopard lizard (BNLL). The project will not have any effect on the BNLL, and therefore cannot contribute to a cumulative impact to this species. The project also is not providing any BNLL mitigation, so the statement is misleading to suggest that it is, or would be necessary for the project to do so. Please revise the first sentence as follows: “Proposed solar development within the Carrizo Plain area combined with other solar development in the region (including the proposed project) does have the potential to result in cumulative impacts to sensitive species, especially high risk species such as the San Joaquin kit fox and blunt-nosed leopard lizard, particularly if suitable mitigation were not employed to offset and mitigate potential impacts.” | 16.86 |
| 86. | Section 4.5 (Cultural Resources) | 4.5-1 & 4.5-35 | TABLE 4.5-1 | Impact CR-1: The impact statement for Impact CR-1 incorrectly states that decommissioning could impact identified NRHP/CRHR-eligible prehistoric or historic archaeological resources. Decommissioning would not result in any new impacts to cultural and paleontological resources. Once the site has been disturbed for construction, the resource has been affected. There is no factual basis for concluding that previously undisturbed areas would be disturbed during decommissioning. Please revise the impact statement as follows: “Construction and decommissioning of the proposed project would involve surface excavation, which has the potential to unearth or adversely impact identified NRHP/CRHR-eligible prehistoric or historic archaeological resources.” | 16.87 |
| 87. | Section 4.5 (Cultural Resources) | 4.5-1 & 4.5-36 | TABLE 4.5-1 | Mitigation Measure CR-1(a) incorporated text which unnecessarily provided the County with authority to determine the feasibility of avoiding impacts to known cultural resources despite the fact that the Impact Analysis identified known cultural resources within the project area and fully evaluated the sensitivity of those resources and the nature of likely impacts to those resources, and then set out mitigation measures to address those potential impacts. Please replace the existing text of this measure with the following which more appropriately describes the applicable mitigation: “NRHP/CRHR-eligible sites that will be avoided (not directly impacted) by the proposed project shall be | 16.88 |

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| | | | | <p><u>marked in the field by a Registered Professional Archaeologist prior to ground disturbance with exclusionary fencing, lath, flagging tape, or some other combination of material that is highly visible, durable, and which construction and management personnel can recognize as marking an exclusion zone where no earth disturbance or other activity shall occur. Exclusion zones shall be inspected weekly by an archaeological monitor or other environmental inspector to ensure that they are being honored, remain effective, and in place. When an NRHP/CRHR-eligible site will not be completely avoided, Mitigation Measures CR-1(b) or CR-1(c) shall apply.</u></p> | 16.88 |
| 88. | Section 4.5 (Cultural Resources) | 4.5-4 & 4.5-38 | TABLE 4.5-1 | <p>Impact CR-2: The impact statement for Impact CR-2 incorrectly states that decommissioning has the potential to unearth or adversely impact previously unidentified cultural resources. Decommissioning would not result in any new impacts to unidentified cultural resources because once the site has been disturbed for construction, the resource has been affected. There is no factual basis for concluding that previously undisturbed areas would be disturbed during decommissioning. Please revise the impact statement as follows: “Construction and decommissioning of the proposed project would involve surface excavation, which has the potential to unearth or adversely impact previously unidentified cultural resources.”</p> | 16.89 |
| 89. | Section 4.5 (Cultural Resources) | 4.5-4 & 4.5-39 | TABLE 4.5-1 | <p>Impact CR-3: The impact statement for Impact CR-s incorrectly states that decommissioning has the potential to unearth or adversely impact previously unidentified cultural resources. Decommissioning would not result in any new impacts to unidentified cultural resources because once the site has been disturbed for construction, the resource has been affected. There is no factual basis for concluding that previously undisturbed areas would be disturbed during decommissioning. Please revise the impact statement as follows: “Construction and decommissioning of the proposed project would involve surface excavation, which has the potential to unearth or adversely impact previously unidentified human remains.”</p> | 16.90 |
| 90. | Section 4.5 (Cultural Resources) | 4.5-35 | | <p>Section 4.5.3.a, Decommissioning: Without any factual basis, the Draft EIR assumes that decommissioning will require avoidance of the same resources that were required to be avoided during construction. In addition, the analysis implies that cultural resources that were not disturbed during construction could be disturbed during decommissioning. There is no factual basis for this implication either. Please delete the entire “Decommissioning” paragraph.</p> | 16.91 |
| 91. | Section 4.5 (Cultural Resources) | 4.5-36 | | <p>Section 4.5.3.b, Impact CR-1, second and fifth paragraphs: These paragraphs incorrectly state that decommissioning could impact identified NRHP/CRHR-eligible prehistoric or historic archaeological resources. As noted in Comment 86 above, decommissioning would not result in any new impacts to cultural and paleontological resources. Once the site has been disturbed for construction, the resource</p> | 16.92 |

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| | | | | has been affected. There is no factual basis for concluding that previously undisturbed areas would be disturbed during decommissioning. Accordingly, please revise the first sentence in the second paragraph as follows: “Construction and decommissioning activities associated with the proposed project could affect prehistoric archaeological resources, as well as historic sites within the project disturbance area.” Similarly, please revise the second sentence of the fifth paragraph as follows: “Construction and decommissioning activities involving ground disturbance have the potential to damage these resources.” | 16.92 |
| 92. | Section 4.5 (Cultural Resources) | 4.5-40 | | Section 4.5.3.b, Impact CR-4, carryover paragraph: This paragraph incorrectly states that decommissioning could unearth human remains. As noted in Comments 86 and 88-91 above, decommissioning would not result in any new impacts to cultural and paleontological resources. Once the site has been disturbed for construction, the resource has been affected. There is no factual basis for concluding that previously undisturbed areas would be disturbed during decommissioning. Accordingly, please revise the first sentence in the second paragraph as follows: “Thus, discovery of buried human remains is not likely to occur with construction or decommissioning of the proposed project.” | 16.93 |
| 93. | Section 4.6 (Geology) | 4.6-1 | TABLE 4.6-1 | Section 4.6.1, Impact GEO-2: The use of the term “solar development area” in the first sentence of the “Impact” column is incorrect. The correct term to use in this discussion is “solar generating facility.” The “solar development area” corresponds to a specific subset within the overall “solar generating facility area.” It is important that the Draft EIR use accurate terminology in order to minimize confusion. Please revise the sentence as follows: “The solar development area <u>solar generating facility area</u> is relatively flat and is subject to low levels of landslide potential.” | 16.94 |
| 94. | Section 4.6 (Geology) | 4.6-2 | TABLE 4.6-1 | Section 4.6.1, Impact GEO-3: The reference to the NPDES program in the second sentence in the “Impact” column should be revised to clarify that it is the construction storm water program. The sentence should be revised as follows: “However, compliance with the NPDES <u>construction storm water program</u> and implementation of measures promoting infiltration, as identified in a final, design-level drainage analysis, would minimize erosion. Impacts would be Class III, less than significant.” The second sentence in the “Mitigation Measures” column should be revised to state that APMs will be implemented to reduce project impacts. In addition, the reference to a SWPPP should be clarified that it is for construction, not operation. Please revise the second sentence as follows: “In addition, compliance with recommendations in a required final, design-level drainage analysis, and compliance with the project’s <u>construction SWPPP</u> , as described in Section 4.9, <i>Hydrology and Water Quality</i> , as | 16.95 |

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| | | | | <u>well as proposed project design features (i.e., APMs), would reduce erosion impacts to a less than significant level.</u> | |
| 95. | Section 4.6 (Geology) | 4.6-3 | | Section 4.6.2.a, Geology, third paragraph: The use of the term “solar development area” in the first sentence is incorrect. The correct term to use in this discussion is “project site.” The “solar development area” corresponds to a specific subset within the overall “solar generating facility area.” It is important that the Draft EIR use accurate terminology in order to minimize confusion. Please revise the first sentence as follows: “ <u>The solar development area project site</u> is located within the U.S. Geological Survey (USGS) Cholame Valley and Dark Hole quadrangles.” | 16.96 |
| 96. | Section 4.6 (Geology) | 4.6-4 | | Section 4.6.2.b, Faulting and Seismically Induced Ground Shaking, third paragraph: The use of the term “solar development area” in the first sentence is incorrect. The correct term to use in this discussion is “solar generating facility.” The “solar development area” corresponds to a specific subset within the overall “solar generating facility area.” It is important that the Draft EIR use accurate terminology in order to minimize confusion. Please revise the first sentence as follows: “The proposed approximately 155-acre utility corridor would cross the San Andreas Fault, while the <u>proposed solar generating facility</u> proposed solar development area would be located approximately two miles northeast of the fault trace.” | 16.97 |
| 97. | Section 4.6 (Geology) | 4.6-6 | | Section 4.6.2.b, San Andreas Fault, carryover paragraph at top: The discussion should be revised to clarify that the proposed improvements within the utility corridor will be limited. This is necessary to accurately describe the project and associated impacts. Please add the following sentence at the end of the paragraph: “ <u>The extent of proposed infrastructure improvements within the utility corridor are, however, limited.</u> ” | 16.98 |
| 98. | Section 4.6 (Geology) | 4.6-6 | | Section 4.6.2.b, Gold Hill Thrust Fault: The use of the term “solar development area” in the second sentence is incorrect. The correct term to use in this discussion is “solar generating facility.” The “solar development area” corresponds to a specific subset within the overall “solar generating facility area.” It is important that the Draft EIR use accurate terminology in order to minimize confusion. Please revise the second sentence as follows: “This fault is located approximately 0.25 miles southwest of the <u>solar generating facility area</u> solar development area and would cross the proposed utility corridor.” | 16.99 |
| 99. | Section 4.6 (Geology) | 4.6-6 | | Section 4.6.2.b, Jack Ranch Fault: The use of the term “solar development area” in the second sentence is incorrect. The correct term to use in this discussion is “solar generating facility.” The “solar development area” corresponds to a specific subset within the overall “solar generating facility area.” It is important that the Draft EIR use accurate terminology in order to minimize confusion. Please revise the second sentence as follows: “This fault is located approximately 1.0 miles southwest of the | 16.100 |

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| | | | | <u>solar generating facility area</u> solar development area and would cross the proposed utility corridor.” | |
| 100. | Section 4.6 (Geology) | 4.6-12 | | Section 4.6.2.c, State, second paragraph: The use of the term “solar development area” in the fifth sentence is incorrect. The correct term to use in this discussion is “solar generating facility.” The “solar development area” corresponds to a specific subset within the overall “solar generating facility area.” It is important that the Draft EIR use accurate terminology in order to minimize confusion. Please revise the fifth sentence as follows: “ <u>The solar development area solar generating facility area</u> is located in a “low” liquefaction area, while portions of the proposed utility corridor and access road are located in a “moderate” liquefaction area [refer to Section 4.6(b) (<i>Land Subsidence and Liquefaction</i>)].” | 16.101 |
| 101. | Section 4.6 (Geology) | 4.6-14 | | Section 4.6.3.a, Impact GEO-1, first paragraph: use of the term “solar development area” in the first sentence is incorrect. The correct term to use in this discussion is “solar generating facility.” The “solar development area” corresponds to a specific subset within the overall “solar generating facility area.” In addition, the text later in the paragraph should be revised to more accurately identify potential impacts. Please revise the paragraph as follows: “ <u>The solar development generating facility area</u> is located in a seismically active region and could be subject to fault rupture and strong seismic groundshaking during the project’s design lifetime (anticipated to be 30 to 40 years). ... As such, The proposed project, due to its proximity to existing faults, the site is likely to experience significant surface rupture and groundshaking activity as a result of seismic activity along the San Andreas Fault during the life of the project. The proposed project would include the construction of PV modules, electrical transformers and other equipment, a transmission line, two substations, a switching station, security fencing, internal access roads and an operations and maintenance (O&M) building, in addition to the utility corridor <u>(which crosses a portion of -that would cross</u> the San Andreas Fault trace).” | 16.102 |
| 102. | Section 4.6 (Geology) | 4.6-15 | | Section 4.6.3.a, Impact GEO-1, first full paragraph: The use of the term “solar development area” in the third sentence is incorrect. The correct term to use in this discussion is “solar generating facility.” The “solar development area” corresponds to a specific subset within the overall “solar generating facility area.” It is important that the Draft EIR use accurate terminology in order to minimize confusion. Please revise the third sentence as follows: “Furthermore, the solar development area <u>solar generating facility area</u> is located in an area mapped as having a low liquefaction potential, according to Exhibit 4.4.3 in the <i>Monterey County General Plan</i> .” | 16.103 |
| 103. | Section 4.6 (Geology) | 4.6-16 | | Section 4.6.3.a, Impact GEO-2: The use of the term “solar development area” in the first sentence of the impact statement is incorrect. The correct term to use in this discussion is “solar generating facility.” The “solar development area” corresponds to a specific subset within the overall “solar | 16.104 |

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| | | | | generating facility area.” It is important that the Draft EIR use accurate terminology in order to minimize confusion. Please revise the sentence as follows: “The solar development area <u>solar generating facility area</u> is relatively flat and is subject to low levels of landslide potential.” | 16.104 |
| 104. | Section 4.6 (Geology) | 4.6-17 | | Section 4.6.3.a, Impact GEO-3, last paragraph: The reference to the NPDES program in the second sentence of the “Impact” description should be revised to clarify that it is the construction storm water program. The sentence should be revised as follows: “However, compliance with the NPDES <u>construction storm water</u> program and implementation of measures promoting infiltration, as identified in a final, design-level drainage analysis, would minimize erosion. Impacts would be Class III, less than significant.” | 16.105 |
| 105. | Section 4.6 (Geology) | 4.6-18 | | Section 4.6.3.a, Impact GEO-3, second paragraph: The use of the term “solar development area” in the second sentence of the impact statement is incorrect. The correct term to use in this discussion is “solar generating facility.” The “solar development area” corresponds to a specific subset within the overall “solar generating facility area.” It is important that the Draft EIR use accurate terminology in order to minimize confusion. Please revise the second sentence as follows: “The operation of the project could also result in localized increases in erosion due to the introduction of new physical elements and impervious surfaces on the solar development area <u>solar generating facility area.</u> ” | 16.106 |
| 106. | Section 4.6 (Geology) | 4.6-18 | | Section 4.6.3.a, Impact GEO-3, last paragraph: The reference to a SWPPP in the first sentence should be revised to clarify that it is for the construction storm water program, as follows: “Implementation of a NPDES-compliant <u>construction</u> Stormwater Pollution Prevention Plan (SWPPP), as required by the Clean Water Act.” | 16.107 |
| 107. | Section 4.6 (Geology) | 4.6-19 | | Section 4.6.3.a, Impact GEO-3, first paragraph: The Draft EIR does not acknowledge that the project includes measures (i.e., APM-1) to address the potential environmental effects associated with project decommissioning. Please make the following revision to the last sentence to provide additional clarification and amplify the analysis in the Draft EIR: “ <u>As described in Section 2.0, Project Description, the project includes APM-1 to ensure that all potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.</u> However, mitigation is required to reduce erosion impacts to a less than significant level. ” | 16.108 |
| 108. | Section 4.6 (Geology) | 4.6-19 | | Section 4.6.3.a, Impact GEO-3, Mitigation Measures: The second sentence should be revised to state that APMs will be implemented to reduce project impacts. In addition, the reference to a SWPPP should be that it is for construction, not operation. Please revise the second sentence as follows: “In addition, compliance with recommendations in a required final, design-level drainage analysis, and | 16.109 |

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| | | | | compliance with the project’s <u>construction SWPPP</u> , as described in Section 4.9, <i>Hydrology and Water Quality</i> , <u>as well as proposed project design features (i.e., APMs)</u> , would reduce erosion impacts to a less than significant level.” | 16.109 |
| 109. | Section 4.7 (Greenhouse Gas Emissions / Climate Change) | 4.7-12 | | Section 4.7.3.a, Decommissioning Emissions: The Draft EIR does not acknowledge that the project includes measures to address the potential environmental effects associated with project decommissioning. The relevant APM should be referenced to provide additional clarification and amplify the analysis in the Draft EIR. Please insert the following sentence at the end of this paragraph: <u>“As described in Section 2.0, Project Description, the project includes APM-1 to ensure that all potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.”</u> | 16.110 |
| 110. | Section 4.7 (Greenhouse Gas Emissions / Climate Change) | 4.7-13 | | Section 4.7.3.b, Impact GHG-1, Operational GHG Analysis, first paragraph: The reference in parenthetical in the last sentence to “42 pounds of CO ₂ per MWh” is incorrect. The correct value is 36 pounds of CO ₂ per MWh. The source for this figure is “Sinha, P., Schneider, M., Dailey, S., Jepson, C., and M. de Wild-Scholten. 2013. Eco-Efficiency of CdTe Photovoltaics with Tracking Systems. 39th IEEE PVSC, Tampa, Florida. http://www.firstsolar.com/~media/documents/white-papers/fs_technicalpaper_tracker_eco-efficiency_ieee_pvsc.ashx .” Please revise the last sentence as follows: “Based on the CCAR emissions factors (630 pounds of CO ₂ per MWh minus 4236 pounds of CO ₂ per MWh to account for the life cycle CO ₂ emissions for cadmium telluride [CdTe]) from fossil-fuel based power plants, the project would offset approximately 202,513 MT CO ₂ e emissions annually.” | 16.111 |
| 111. | Section 4.7 (Greenhouse Gas Emissions / Climate Change) | 4.7-13 | | Section 4.7.3.b, Impact GHG-1: In correspondence delivered to the County prior to the publication of the Draft EIR, certain adjacent property owners expressed concern that the heat absorbed by project components, such as PV modules, would increase local ambient temperatures. The Final EIR should include an evaluation of this potential impact. We note that a recent study of heat island effects utilized meteorological weather station data from the Sarnia Solar Power Plant (“Sarnia Plant”), an 80 MW PV facility in Ontario Canada that was constructed with First Solar technology. (First Solar 2010 [Sarnia Solar Power Plant Air Temperature Variation Analysis, Interim Results (2010)]). In this study, temperature and meteorological data was collected at a weather data station 30 meters adjacent to the Sarnia Plant and compared with background weather data stations located at least 1 kilometer from the Sarnia Plant. No statistically significant temperature differences were found between the two monitoring stations, regardless of wind direction, indicating that the ambient temperature in areas adjacent to the Sarnia Plant were comparable to background ambient temperatures. Accordingly, the proposed project is not expected to impact local ambient temperatures. | 16.112 |

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| 112. | Section 4.8 (Hazards and Hazardous Materials) | 4.8-2 | TABLE 4.8-1 | Section 4.8.1, Impact HAZ-4(b) Emergency Access: The emergency access requirement in Mitigation Measure HAZ-4(b) is very similar to the emergency access maintenance requirement in Mitigation Measure HAZ-4(a). It is also very similar to standard County conditions of approval. We recommend that Mitigation Measures HAZ-4(a) and HAZ-4(b) be combined to eliminate redundancy. Having similar requirements as separate mitigation measures and conditions of approval can create confusion and consequent compliance challenges during post-approval implementation and construction. | 16.113 |
| 113. | Section 4.8 (Hazards and Hazardous Materials) | 4.8-3 & 4.8-21 | TABLE 4.8-1 | Section 4.8.1, Mitigation Measure HAZ-5: The requirement that the recycling or disposal plan be developed prior to construction is unwarranted. Defective PV modules discovered during construction are shipped back to the manufacturer. In other words, the recycling or disposal plan should only apply to operations and decommissioning. In addition, the requirement that the plan address “support structures” is unwarranted. The concern that the plan is intended to address is the abandonment of PV modules, not support structures. Moreover, the mitigation measure is unclear and may be duplicative with bonding requirements in the Development Agreement that is being negotiated with the County. As currently drafted, this measure could require the Applicant to post multiple bonds related to disposal, recycling and decommissioning. To address these deficiencies, please revise the Mitigation Measure as follows: “Prior to construction permit issuance <u>operation</u> , the applicant shall submit a recycling or disposal plan for PV modules and support structures for County review and approval, in order that project structures not pose a risk to human health or the environment after project repowering and/or decommissioning. The plan shall specify how these project components shall be <u>recycled or</u> disposed of in a manner that will not pose a risk to human health or the environment, and the costs of such <u>recycling or</u> disposal. Prior to grading or building permit issuance <u>operation</u> , the applicant shall post a long-term <u>decommissioning</u> bond to the County of Monterey, or other mutually acceptable financial obligation, in an amount consistent with these costs (plus County administrative costs) <u>consistent with the requirements of the Development Agreement (if approved)</u> , and which may also include any other project decommissioning obligations. ” | 16.114 |
| 114. | Section 4.8 (Hazards and Hazardous Materials) | 4.8-14 | | Section 4.8.3.a, Methodology, first full paragraph: The Draft EIR does not acknowledge that the project includes measures (i.e., APM-1) to address the potential environmental effects associated with project decommissioning. Please insert the following sentence before the last sentence in the paragraph to provide additional clarification and amplify the analysis in the Draft EIR: “ <u>As described in Section 2.0, Project Description, the project includes APM-1 to ensure that all potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is</u> | 16.115 |

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| | | | | <u>proposed consistent with regulations in effect at that time.</u> " | |
| 115. | Section 4.8 (Hazards and Hazardous Materials) | 4.8-17 | | Section 4.8.3.b, HAZ-2, carryover paragraph at top of page: The last sentence of the paragraph contains a misleading statement regarding health risks associated with CdTe PV technology. Specifically, the last sentence discusses the results of the Lovric et al. (2005) study, which analyzed of the health risks associated with CdTe quantum dot technology. Quantum dot technology is unrelated to CdTe PV technology and, therefore, the Lovric et al. (2005) study is irrelevant to the analysis of potential impacts associated with the CdTe PV technology that may be used in the proposed project. The last sentence should be deleted, or at least revised to contain an accurate qualification as follows: <u>"and cell nuclei depending on the technology used in quantum dot technology applications (Lovric et al., 2005), which is unrelated to the CdTe PV technology that may be used in the project (Lovric et al., 2005)."</u> | 16.116 |
| 116. | Section 4.8 (Hazards and Hazardous Materials) | 4.8-20 | | Section 4.8.3.b, Mitigation Measure HAZ-4(b): The emergency access requirement in Mitigation Measure HAZ-4(b) is very similar to the emergency access maintenance requirement in Mitigation Measure HAZ-4(a). It is also very similar to standard County conditions of approval. We recommend that Mitigation Measures HAZ-4(a) and HAZ-4(b) be combined to eliminate redundancy. Having similar requirements as separate mitigation measures and conditions of approval can create confusion and consequent compliance challenges during post-approval implementation and construction. | 16.117 |
| 117. | Section 4.8 (Hazards and Hazardous Materials) | 4.8-21 | | Section 4.8.3.b, Mitigation Measure HAZ-5: The disposal or recycling requirements of modules and support structures at decommissioning or repowering need to be explicit in order for the project to be commercially viable. Please revise the following text at the end of Mitigation Measure HAZ-5: . . . or other mutually acceptable financial obligation, in an amount consistent with these costs (plus County administrative costs), and which may also include any other project decommissioning obligations. | 16.118 |
| 118. | Section 4.9 (Hydrology and Water Quality) | 4.9-1 & 4.9-18 | TABLE 4.9-1 | Impact HYD-2, Mitigation Measure HYD-2(a): The project includes an APM consisting of the preparation of a Hazardous Materials Response Plan (HMRP). The HMRP will include a spill response plan and a spill prevention, control, and countermeasure plan to address management of hazardous materials during construction. HYD 2-(a) creates a similar requirement and could create potential confusion as part of the condition compliance phase of the project. In order to prevent such confusion, the HMRP should incorporate all the spill response and spill prevention measures required by Mitigation Measure HYD-2(a). Please insert the following text at the end of Mitigation Measure HYD-2(a): <u>"The HMRP proposed as part of the project (APM-6) shall incorporate all of the elements of this mitigation measure. The County of Monterey shall be responsible for reviewing the applicant's</u> | 16.119 |

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| | | | | <u>proposed HMRP to confirm that it incorporates the requirements of this mitigation measure.</u> " | |
| 119. | Section 4.9 (Hydrology and Water Quality) | 4.9-2 to 9-3, 4.9-23 to 9.27 | TABLE 4.9-1 | Section 4.9.1, Impact HYD-4 and HYD-5: The applicant proposes new APM-11 to complete a final design drainage analysis to address potential drainage impacts of the proposed project and ensure that such impacts are less than significant, as noted in Comment 3 above. Because APM-11 will ensure that Impacts HYD-4 and HYD-5 are less than significant, the existing text in the "Mitigation Measures" column for HYD-4 and HYD-5 should be deleted entirely and replaced with the following: " <u>No mitigation measures would be required.</u> " | 16.120 |
| 120. | Section 4.9 (Hydrology and Water Quality) | 4.9-24 & 4.9-26 to 9.27 | | <p>Section 4.9.3.b, Impact HYD-4 and Impact HYD-5: The discussion of Impacts HYD-4 and HYD-5 correctly state that the applicant will prepare a design level drainage analysis that will ensure that project components are not subjected to significant flood-related or erosion-related damage, and that the capacity of watercourses would not be significantly reduced. In order to clarify the existing analysis, the applicant proposes new APM-11 that codifies the applicant's obligation to prepare and implement a design level drainage analysis (see Comment 3).</p> <p>In order to incorporate APM-11 into the analysis of Impacts HYD-4 and HYD-5, we propose the following text changes:</p> <p>Page 4.9-24, Section 4.9.3.b, Impact HYD-4, Mitigation Measures:</p> <p>"Mitigation Measures-The final design of the project would be required to be developed in accordance with <u>APM-11</u>, in which the applicant shall prepare a final design level drainage analysis which would include a detailed evaluation of the potential drainage impacts associated with the project, including identification of measures to reduce runoff by promoting infiltration. As noted in the Preliminary Drainage Report (RBF, 2013) and in the <u>Preliminary Drainage Analysis Addendum (Wallace Group 2014)</u>, measures to reduce runoff by promoting infiltration would be selected and configured as part of this final design considering local impacts from proposed improvements, detailed grading plans and maintenance requirements. <u>The design level drainage analysis would ensure that increases in peak runoff flow rates and volumes due to the addition of impervious surfaces such as isolated buildings are mitigated so that post-project flow rates and volumes are no greater than pre-project flow rates and volumes for the 85th percentile storm event (NOAA Atlas 14) or a method acceptable by Monterey County and Regional Water Quality Control Board.</u> In addition, the proposed project would be required</p> | 16.121 |

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| | | | | <p>to comply with the NPDES program, including through preparation of a SWPPP and implementation of associated BMPs, as outlined in Impact HYD-1. Compliance with recommendations in the design-level drainage analysis and existing regulations would reduce result in impacts related to increased erosion downstream <u>that are to a less than significant level. No mitigation would be required.</u></p> <p><u>Mitigation Measures. No mitigation is required.</u></p> <p><u>Significance After Mitigation. Impacts would be less than significant.</u></p> <p>Page 4.9-26, Section 4.9.3.b, Impact HYD-5, starting at first full paragraph:</p> <p><u>“The proposed project would be required to <u>implement APM-11, which requires the preparation of a design level drainage study that contains measures that ensure that project facilities are not placed in areas where they would be subject to significant flood or erosion hazards.</u> comply with the recommendations in the Preliminary Drainage Report (RBF, 2013), and the final design of the project would be required to be developed in accordance with a final, design-level, drainage analysis. As outlined in the Preliminary Drainage Report, the final design-level drainage analysis would include the following requirements:</u></p> <ul style="list-style-type: none"> ● No modules shall be placed in areas where the product of the flow depth and flow velocity is greater than 9 feet per second (corresponding to a hazard level 3, as defined in the Preliminary Drainage Report) during a 100 year, 24-hour storm event, based on the results of a design-level drainage analysis; ● No transformers, substations, or inverters shall be placed in areas where the flow depth exceeds 2 feet (corresponding to a hazard level 3, as defined in the Preliminary Drainage Report) during a 100 year, 24-hour storm event; and ● Solar modules, transformers, substations, or inverters constructed in areas where any inundation is expected to occur should be placed a minimum of 1 foot above the 100-year water surface elevation. <p>The Monterey County Water Resources Agency would review and approve the design-level drainage</p> |

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| | | | | <p>analysis. Implementation of the recommendations contained therein, including the flood risk avoidance measures listed above, would ensure that proposed facilities avoid <u>significant flood or erosion hazardshigher flow rates.</u>"</p> <p>Page 4.9-27, Section 4.9.3.b, Impact HYD-5, starting at carryover paragraph at top of page, beginning with first full sentence:</p> <p>"To ensure the improvements are consistent with the requirements of Chapter 16.16 of the Monterey County Code, the design-level drainage analysis <u>prepared by the applicant in accordance with APM-11 (and discussed above in HYD-4described above)</u> would be required to address any development proposed within 50 feet from the top of the bank of on-site drainages and prove, to the satisfaction of the Monterey County Water Resources Agency, that any improvements within 50 feet from the top of bank of on-site drainages will not result in significant flood- or erosion-related hazards, and that these improvements will not affect the existing capacity of the affected watercourse, as required by Chapter 16.16 of the Monterey County Code. Implementation of Compliance with the recommendations contained in the design-level drainage analysis would ensure that impacts are less than significant, the proposed development would be safe from flow related hazards and would not significantly reduce the capacity of the existing watercourses. Upon compliance with the requirement so Chapter 16.16, impacts would be less than significant.</p> <p><u>Mitigation Measures. No mitigation is required.</u> As noted above, the applicant would be required to prepare a design level drainage analysis that would ensure both that proposed facilities avoid higher flow rates, and that any improvements within 50 feet from the top of bank of on-site drainages would comply with the requirements of Chapter 16.16 of the Monterey County Code. Compliance with the recommendations contained in the design level analysis would ensure that impacts are less than significant. No mitigation is required.</p> <p><u>Significance After Mitigation. Impacts would be less than significant.</u>"</p> |
| 121. | Section 4.9 (Hydrology and | 4.9-28 | | <p>Section 4.9.3.c, Cumulative Impact Analysis, first paragraph: The second sentence in the paragraph incorrectly states the amount of water that the proposed project would require during construction.</p> |

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| | Water Quality) | | | Please revise the second sentence as follows: “The proposed project would require up to <u>494 acre-feet</u> 345 AFY during construction and up to 5 AFY during operation.” | 16.122 |
| 122. | Section 4.10 (Land Use and Planning) | 4.10-2 | | Section 4.10.2, Project Site Setting, second paragraph: The first sentence contains incorrectly describes the project site setting. Please revise the sentence as follows: “The proposed project site is located on a portion of an existing 72,000-acre cattle ranch, known as “Jack Ranch,” which is itself part of the larger, 152,000-acre Hearst Ranch.” | 16.123 |
| 123. | Section 4.10 (Land Use and Planning) | 4.10-2 | | Section 4.10.2, Project Site Setting, fourth paragraph: The text should be revised to provide further detail concerning the type of improvements that are allowable. Accordingly, the last sentence in the first bulleted item (Farmland) should be revised as follows: “The County of Monterey has, however, determined that solar components (<u>e.g., PV modules, inverters, and other related infrastructure</u>) of ground-mounted facilities will not be counted as building site coverage. (Monterey County Director Interpretation, August 2012).” In addition, the last sentence of the second bulleted item (Permanent Grazing) should be revised as follows: “As noted above, the County of Monterey has determined that solar components (<u>e.g., PV modules, inverters, and other related infrastructure</u>) of ground-mounted facilities will not be counted as building site coverage. (Monterey County Director Interpretation, August 2012).” | 16.124 |
| 124. | Section 4.10 (Land Use and Planning) | 4.10-8 | TABLE 4.10-2 | Section 4.10.2, Monterey County General Plan Policy LU-1.11: The discussion in the “Consistency Discussion” column should be revised to more accurately reflect what improvements are allowable and to clarify the types of improvements that are not counted towards building coverage. Please incorporate the following revisions: “The County of Monterey previously determined that <u>the solar components of ground-mounted facilities</u> photovoltaic (PV) modules do not constitute buildings as defined in Title 21 and therefore <u>are</u> not subject to the building coverage requirements (Monterey County, August 2012).” | 16.125 |
| 125. | Section 4.10 (Land Use and Planning) | 4.10-10 to 10-11 | TABLE 4.10-2 | Section 4.10.2, Monterey County General Plan Policy OS-3.1 and OS-4.2: The discussion of the consistency of the proposed project with these policies should be updated to reflect that the proposed project includes measures to address potential impacts related to erosion and water quality. The following text should be inserted in the “Consistency Discussion” column for both Policies OS-3.1 and OS-4.2: “ <u>The proposed project would implement on-going construction and operational BMPs to ensure that discharges of harmful substances into streams would not exceed state of federal standards consistent with the intent of this policy.</u> ” | 16.126 |
| 126. | Section 4.10 (Land Use and | 4.10-11 | TABLE 4.10-2 | Section 4.10.2, Monterey County General Plan Policy OS-5.3: The discussion in the “Consistency Discussion” column incorrectly states that Section 4.4 (Biological Resources) indicates that the | 16.127 |

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| | Planning) | | | proposed project could impact designated critical habitat. To the contrary, Section 4.4 consistently, and correctly, states that the project site is not located within designated critical habitat for any listed species. Accordingly, the text in the “Consistency Discussion” column should be revised as follows: “As described in Section 4.4, <i>Biological Resources</i> , <u>no</u> critical habitat could <u>would</u> be impacted by the proposed project. <u>In addition,</u> Mitigation Measures outlined in Section 4.4, <i>Biological Resources</i> , would be required to ensure conservation and maintenance of such areas, as well as to reduce potential impacts to protected wetlands. These measures would reduce any potential impacts to biological resources to less than significant levels and ensure consistency with this policy. | 16.127 |
| 127. | Section 4.10 (Land Use and Planning) | 4.10-18 | TABLE 4.10-2 | Section 4.10.2, Monterey County General Plan Policy C-1.11: The County previously determined that the project would not be subject to regional traffic fees. However, the findings in the Draft EIR associated with C-1.11 incorrectly state that the project would be required to pay County traffic impact fees under Policy C-1.8. Please correct the text in the “Consistency Discussion” column as follows: “Potentially Consistent. The proposed project would <u>not</u> be required to pay applicable fees in accordance with applicable County policies.” | 16.128 |
| 128. | Section 4.10 (Land Use and Planning) | 4.10-21 | TABLE 4.10-2 | Section 4.10.2, Monterey County General Plan Policy S-3.1: The reference to a SWPPP in the “Consistency Discussion” column should be clarified that it is for construction, not operation. Please revise the first sentence as follows: “As described in Section 4.9, <i>Hydrology and Water Quality</i> , the proposed project would be required to comply with the <u>construction storm water</u> NPDES program, including through preparation of a SWPPP and implementation of associated BMPs, as well as implementation of an erosion control plan consistent with the County of Monterey standards as a condition of project approval.” | 16.129 |
| 129. | Section 4.10 (Land Use and Planning) | 4.10-28 | TABLE 4.10-2 | Section 4.10.2, Monterey County General Plan Policy PS-13.2: The Draft EIR leaves the determination of feasibility of line undergrounding to the discretion of the Director of the RMA. Given the nature of the project, some lines will necessarily be above ground. It also creates uncertainty as to the ultimate scope and cost of the project. To eliminate these uncertainties, please delete the last sentence as follows: “ Feasibility of line undergrounding would be at the discretion of the Director of the Resource Management Agency. ” | 16.130 |
| 130. | Section 4.10 (Land Use and Planning) | 4.10-31 | TABLE 4.10-4 | Section 4.10.3, South County Area Plan Policy, Policy SC-1.2: Policy SC-1.2 is not relevant to the project because it concerns clustered development. Clustered development generally concerns residential and commercial development. The text in the “Consistency Discussion” should be revised as follows: “ The project site is located in a remote area of Monterey County, and has direct access to existing transmission infrastructure. The proposed project’s location adjacent to this existing transmission | 16.131 |

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| | | | | <p>infrastructure could be considered an efficient use of land despite the fact that non-irrigated agricultural land would be converted to accommodate the project as it would reduce the amount of new transmission infrastructure required to bring renewable energy to the grid. Section 4.2, <i>Agricultural Resources</i> provides additional detail regarding impacts related to farmland. This policy is not applicable to the proposed project. This policy consists of a County directive to encourage specific types of commercial, residential, and industrial development. The project consists of a renewable energy facility.”</p> | 16.131 |
| 131. | Section 4.11 (Noise) | 4.11-1 & 4.11-13 to 11-14 and 4.11-15 to 11-16 | TABLE 4.11-1 | <p>Table 4.11-1 and Section 4.11.3.b, Impact N-1 and N.2: The EIR should take a consistent approach throughout the document to analyze the impacts of decommissioning as a specific and separate impact in each resource section. The analysis of noise impacts in Impacts N-1 and N-2 combines the impacts of construction and decommissioning. The noise impacts associated with decommissioning should be treated as a separate impact.</p> | 16.132 |
| 132. | Section 4.11 (Noise) | 4.11-9 | | <p>Section 4.11.3.a, Methodology, third full paragraph: The Draft EIR does not acknowledge that the project includes measures (i.e., APM-1) to address the potential environmental effects associated with project decommissioning. Please insert the following after the last sentence in the paragraph to provide additional clarification and amplify the analysis in the Draft EIR: <u>“As described in Section 2.0, <i>Project Description</i>, the project includes APM-1 to ensure that all potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.”</u></p> | 16.133 |
| 133. | Section 4.11 (Noise) | 4.11-13 | | <p>Section 4.11.3.b, Impact N-1, carryover paragraph: It is possible that it will be necessary to conduct some construction activities on weekends, depending on project scheduling, equipment and material delivery schedules, and other logistical considerations. However, the amount of weekend work would be limited to the extent practicable. Please insert the following sentence before the first full sentence on the page: <u>“A limited amount of construction work on the weekends may be required, depending on project scheduling, equipment and material delivery schedules, and other logistical considerations. In addition, sSome nighttime construction work”</u></p> | 16.134 |
| 134. | Section 4.11 (Noise) | 4.11-13 | | <p>Section 4.11.3, Impact N-1, 1st full paragraph: The discussion of noise impacts due to construction laydown areas and proximity to sensitive receptors should be revised to specify the relative distance between construction laydown areas and sensitive receptors. Please revise the paragraph by adding the following sentences at the end of the paragraph: <u>“As described above, the proposed laydown areas are not located within close proximity to any sensitive receptors. The proposed 38-acre laydown area is located approximately 5 miles southeast of the nearest sensitive receptors. No sensitive</u></p> | 16.135 |

Table 1 – Comments

California Flats Solar Project, Draft Environmental Impact Report, County of Monterey, California, August 6, 2014

California Flats Solar, LLC - September 22, 2014

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|---------|--------------------------------|-------------|------------------------|--|--------|
| | | | | <p><u>receptors are located in close proximity to the proposed staging areas located on the project entrance.”</u></p> | |
| 135. | Section 4.11 (Noise) | 4.11-14 | | <p>Section 4.11.3.b, Impact N-1, carryover paragraph: The Draft EIR does not acknowledge that the project includes measures (i.e., APM-1) to address the potential environmental effects associated with project decommissioning. As noted above in Comment 131, the analysis of the noise impacts of decommissioning should be identified as a separate and distinct impact, rather than in Impact N-1 or N-2. However, if the County does not incorporate a new decommissioning-specific impact in the Section 4.11 (Noise), please replace the second-to-last sentence in the paragraph with the following text to provide additional clarification and amplify the analysis in the Draft EIR: <u>“A final decommissioning plan, based on the current technology, site conditions, and regulations, would be prepared prior to actual decommissioning. As described in Section 2.0, Project Description, the project includes APM-1 to ensure that all potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.”</u></p> | 16.136 |
| 136. | Section 4.11 (Noise) | 4.11-16 | | <p>Section 4.11.3.b, Impact N-2, carryover paragraph: The Draft EIR does not acknowledge that the project includes measures (i.e., APM-1) to address the potential environmental effects associated with project decommissioning. As noted above in Comment 131, the analysis of the noise impacts of decommissioning should be identified as a separate and distinct impact, rather than in Impact N-1 or N-2. However, if the County does not incorporate a new decommissioning-specific impact in the Section 4.11 (Noise), please revise the last sentence in the paragraph with the following text to provide additional clarification and amplify the analysis in the Draft EIR: <u>“... be generally similar to the noise levels that would occur during project construction;†. As described in Section 2.0, Project Description, the project includes APM-1 to ensure that all potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time. Therefore, decommissioning of the project would result in less than significant transportation noise impacts.”</u></p> | 16.137 |
| 137. | Section 4.12 (Public Services) | 4.12-7 | | <p>Section 4.12.3.a, Methodology, carryover paragraph: The Draft EIR does not acknowledge that the project includes measures (i.e., APM-1) to address the potential environmental effects associated with project decommissioning. Please insert the following after the last sentence in the paragraph to provide additional clarification and amplify the analysis in the Draft EIR: <u>“As described in Section 2.0, Project Description, the project includes APM-1 to ensure that all potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.”</u></p> | 16.138 |

Table 1 – Comments

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|---------|--|------------------|------------------------|--|--------|
| 138. | Section 4.12 (Public Services) | 4.12-9 | | Section 4.12.3.b, Impact PS-1, first full paragraph: Based on First Solar’s discussions with Cal-Fire, firefighters would not require additional, specialized training to respond to a fire at the proposed project. Accordingly, please delete the first full paragraph, as follows: “Cal Fire identified additional hazards and access issues fire fighters would encounter with introduction of PV systems to the site, including electrical shock during and post fire incident, as well as concerns associated with the inhalation of unusual materials. Fire fighters would have to adapt to new firefighting procedures, strategies, tactics, and training. As such, the department would need to provide specialized training for existing staff to serve solar PV project sites.” | 16.139 |
| 139. | Section 4.13 (Transportation/Traffic) | 4.13-2 & 4.13-21 | Table 4.13-1 | Impact T-4, Mitigation Measure T-4: The Draft EIR includes mitigation for operational traffic impacts that would involve the use of a flag man to redirect traffic headed for eastbound SR 46. However, the traffic associated with the operational phase would be very light, as only 8-10 project employees would travel to the site daily during the operation phase. As such, the requirement to have a flagman at this intersection is overly burdensome and is not practical. Mitigation Measure T-4 should be deleted. | 16.140 |
| 140. | Section 4.13 (Transportation/Traffic) | 4.13-25 | | Section 4.13.3 Impact Analysis. Because many of the potential Park and Ride Facilities are existing unimproved parking lots in rural areas along existing transportation routes, restricting parking facilities to only improved lots severely limits the potential geographic distribution and functionality of a construction worker shuttle system. Additionally, improved lots are more likely to be closer to residential or developed areas, thereby increasing the likelihood of secondary traffic impacts. The T-7 MM Park and Ride Facility Siting should be revised as follows: “Any proposed park and ride facilities shall be sited in already developed parking lots designed to accommodate large numbers of vehicles (e.g. shopping center locations). All vehicles shall be required to park in designated parking spaces. These lots shall be currently improved and have existing stormwater drainage infrastructure in place. No permanent new lighting shall be installed.” | 16.141 |
| 141. | Section 4.13 (Transportation/Traffic) | 4.13-13 | | Section 4.13.3.a, Methodology, third paragraph : The Draft EIR does not acknowledge that the project includes measures (i.e., APM-1) to address the potential environmental effects associated with project decommissioning. Please insert the following before the last sentence in the paragraph to provide additional clarification and amplify the analysis in the Draft EIR: <u>“As described in Section 2.0, <i>Project Description</i>, the project includes APM-1 to ensure that all potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.</u> The County may conduct additional CEQA review to ensure adequate traffic LOS during decommissioning.” | 16.142 |

Table 1 – Comments

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|---------|--|---------------------------|------------------------|--|--------|
| 142. | Section 4.13 (Transportation/Traffic) | 4.13-20 | | Section 4.13.3.b, Impact T-3, first paragraph: The Draft EIR overstates the potential traffic-related effects associated with the operational phase of the proposed project. Kimley-Horn and Associates, Inc. previously determined that the level of potential operation-related traffic impacts would be similar to existing conditions. Accordingly, the operational phase-related traffic effects would be relatively insignificant in comparison to existing traffic levels. The EIR should be revised to reflect this important distinction and amplify and clarify the existing analysis. Please insert the following text at the end of the paragraph: <u>“According to Kimley-Horn and Associates, Inc., operational phase traffic is anticipated to be similar to existing conditions with project impacts less critical than project construction. The addition of operational phase-related traffic to the existing roadway network would be insignificant in comparison to existing traffic levels (Kimley-Horn and Associates, 2013).”</u> | 16.143 |
| 143. | Section 4.13 (Transportation/Traffic) | 4.13-2 & 4.13-21 to 13.23 | | Section 4.13.3, Impact T-5: The Draft EIR misinterprets the relevant CEQA threshold to conclude that a significant and unavoidable impact will occur due to existing traffic hazards associated with the SR 41/SR46 intersection. The analysis of Impact T-5 is not directly related to an established CEQA threshold of significance. The significance criteria that relates to potential traffic hazards is whether the proposed project would “substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).” The SR 41/46 intersection is an existing condition. The project does not include any design features or incompatible uses that would cause a significant impact. Accordingly, Impact T-5 should be deleted entirely. | 16.144 |
| 144. | Section 4.13 (Transportation/Traffic) | 4.13-26 | | Section 4.13.3.c, Cumulative Impact Analysis, last paragraph: The last paragraph misinterprets the relevant CEQA threshold to conclude that a significant and unavoidable cumulative impact will occur due to existing traffic hazards associated with the SR 41/SR46 intersection. This analysis is not directly related to an established CEQA threshold of significance. The significance criteria that relates to potential traffic hazards is whether the proposed project would “substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).” The SR 41/46 intersection is an existing condition. The project does not include any design features or incompatible uses that would cause a significant impact. Accordingly, the last paragraph should be deleted entirely. | 16.145 |
| 145. | Section 4.13 (Transportation/Traffic) | | | Section 4.13 does not contain a decommissioning-specific impact. Although Section 4.13 does discuss decommissioning-related traffic impacts at pages 4.13-12, 13-16 and 13-23, the lack of a decommissioning-specific impact (e.g., T-8) is inconsistent with the approach to the analysis of decommissioning impacts in other sections (e.g., 4.3, Air Quality). For the purposes of consistency and clarifying the nature of decommissioning impacts, it is recommended that the Final EIR include a | 16.146 |

Table 1 – Comments

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| | | | | decommissioning-specific traffic impact section to Section 4.13. |
| 146. | Chapter 6.0 (Long-Term Impacts) | 6-1 | | <p>Section 6.1.1, Construction Workforce last paragraph: The Draft EIR contains incorrect assumptions related to the amount of workers that would commute to the project and the amount of workers that would choose to live closer to the project. As provided in Section 4.12, <i>Transportation</i>, the project would implement a mandatory shuttle service that would transport 95% of the total construction workforce to and from the project site each day, whereas only 5% of the construction workforce would be issued permits to drive their own vehicles. Accordingly, the vast majority of the workforce is expected to rely on the shuttle service and would not be expected to relocate near the project. In addition, given the limited housing availability in Parkfield, Cholame and Shandon, the majority of the limited numbers of workers that do relocate would find housing in the City of Paso Robles or the City of Avenal. Please revise the last paragraph as follows: <u>“As a condition of employment, 95% of construction personnel would be required to commute to the project site via the proposed employee shuttle that would depart from specified park-and-ride lots. Only 5% of construction employees would be given permits to drive personal vehicles to the site. While some the majority of the labor force would likely commute to the project park-and-ride lots from existing residences, some a limited number may elect to temporarily relocate near the project site.-Given the remote nature of the project site and the relatively limited availability of lodging in nearby rural communities (including Parkfield, Cholame, and Shandon), it is assumed that the majority of workers would find accommodation in the City of Paso Robles and/or the City of Avenal.”</u></p> |
| 147. | Chapter 6.0 (Long-Term Impacts) | 6-2 | | <p>6.1.1, Construction Workforce, first paragraph and Mitigation Measure LT-1: The project would not create a level of demand for temporary accommodations during construction that would result in significant impacts to the housing supply. As noted in the previous comment, 95% of the construction workforce will be required to commute to the project using an employee shuttle departing from specified park and ride lots, and only 5% will be given permits to use personal vehicles to commute to the project. Accordingly, the majority of the construction workforce is expected to commute from their residences and utilize the shuttle. As such, only a limited number of construction workers would be expected to relocate closer to the project. Therefore, the demand associated with the limited number of construction workers that do choose to relocate will not create a significant impact on the existing housing supply. Please revise the last sentence in the first paragraph, as follows: <u>“However, because a limited number of construction workers are anticipated to relocate closer to the project, the demand for temporary accommodations during construction would not result in significant impacts to</u></p> |

16.147

16.148

Table 1 – Comments

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| | | | | the existing housing supply. As such, demand for temporary accommodations during construction would result in significant impacts to the existing housing supply. | |
| 148. | Chapter 6.0 (Long-Term Impacts) | 6-2 | | 6.1.1, Mitigation Measures: As explained in Comment 147 above, the project will not result in a significant impact to the existing housing supply. Therefore, Mitigation Measure LT-1 is not warranted. Please revise this section to state: <u>“No mitigation is necessary.”</u> | 16.149 |
| 149. | Section 7.0 (Alternatives) | 7-15 | | Section 7.3.2, Hydrology, second paragraph: The Draft EIR does not identify potential construction water requirements associated with the Alternative 2. Please revise the first sentence as follows: <u>“Similar to the proposed project, this alternative would require water for dust suppression purposes during construction, as well as water to potable water would be needed to wash the modules and support overall operations at the site.”</u> | 16.150 |
| 150. | Section 7.0 (Alternatives) | 7-17 | | Section 7.3.2, Transportation/Traffic, second paragraph: The Draft EIR incorrectly states that a flagman mitigation measure (similar to Mitigation Measure T-2) would be applicable to this alternative. Alternative 2 would not require this type of measure during the Friday Peak hour because the significant impact associated with the proposed project is traffic making a right turn from the existing private access road onto SR 41 and then a left onto on eastbound SR 46. Under Alternative 2, project-related traffic would not make a left turn onto eastbound SR 46. Therefore, no mitigation would be required. Please revise the second paragraph as follows: <u>“As with the proposed project, construction of this alternative would add trips to the intersection of SR 41/SR 46, which currently operates at LOS F during the Friday PM Peak Hour. This impact would be Class II, significant but mitigable, with implementation of Mitigation Measure T-2, similar to the proposed project. This alternative would avoid potential impacts associated with the proposed project’s addition of trips to the intersection of SR41/SR 46. The southbound left from SR 41 to SR 46 currently operates at an LOS F. This alternative would not add any trips traveling on SR 41 making a left onto eastbound SR 46. As a result, no mitigation would be warranted.”</u> | 16.151 |
| 151. | Section 7.0 (Alternatives) | 7-17 to 18 | | Section 7.3.2, Transportation/Traffic, carryover paragraph: For the reasons stated in Comment 150 above, the Draft EIR incorrectly states that a flagman mitigation measure (similar to Mitigation Measure T-4) would be applicable to Alternative 2. Under Alternative 2, project-related traffic would not make a left turn onto eastbound SR 46. Therefore, no mitigation would be required. Please revise the paragraph as follows: <u>“Project generated traffic during the operation phase would add trips to the intersection of SR 41/ SR 46, similar to the proposed project. As discussed, this the southbound left at this intersection currently operates at LOS F during the Friday PM Peak Hour. This alternative would not contribute any traffic trips making a southbound left from SR 41 onto eastbound SR 46. As a result, this</u> | 16.152 |

Table 1 – Comments

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| Comment | Document Chapter | Page Number | Figure or Table Number | Comment and/or Reference | |
|---------|----------------------------|-------------|------------------------|--|--------|
| | | | | <p>alternative would avoid the potential significant impacts associated with the proposed project. Alternative related traffic would cause a Class II, significant but mitigable impact with implementation of Mitigation Measure T 4. As described for the proposed project, accident rates at the intersection of SR 41 / SR 46 are more than two times the statewide average. Addition of traffic to this intersection during construction and operation of the proposed project could exacerbate existing hazards. Implementation of Mitigation Measures T 2 and T 4 would reduce the impact but it would remain Class I, significant and unavoidable.</p> | 16.152 |
| 152. | Section 7.0 (Alternatives) | 7-18 | | <p>Section 7.3.2, second full paragraph: The Draft EIR states that it is unknown whether an employee shuttle service would be necessary for Alternative 2 because it is possible that the construction of this alternative could be phased to accommodate construction worker vehicles and obviate the need for shuttles departing from park-and-ride lots. This conclusion is unwarranted, given that Alternative 2 contemplates constructing a 280 MW solar generating facility in 12-24 months. This is the same MW-capacity facility as the proposed project, as is the construction timeframe. Therefore, it is not reasonable to conclude that it would be possible to phase construction in manner that would avoid the need to shuttle workers from park-and-ride lots. Please revise the second paragraph as follows: <u>“Given the alternative site location, Consistent with the proposed project, this alternative would include the use of an employee shuttle. This alternative would be constructed over 12 to 24 months consistent with the proposed project and an employee shuttle would be necessary to reduce the extent of construction traffic trips. As a result, this alternative would result in comparable secondary effects as the proposed project in terms of potential park and ride locations. it is unknown whether an employee shuttle service would be needed to provide transport to and from the site during construction. It may be possible to phase construction to accommodate construction worker vehicles which would avoid the need for an off-site park and ride lot and related environmental impacts. If so, impacts associated with the proposed project would be avoided. If not, impacts would likely be similar to those described for the proposed project and Class II, significant but mitigable through implementation of Mitigation Measure T-7.”</u></p> | 16.153 |
| 153. | Section 7.0 (Alternatives) | 7-18 | | <p>Section 7.4.1, Description, last paragraph: The Draft EIR misrepresents the footprint of Alternative 3. The Draft EIR should use the solar development area as the metric for comparing Alternative 3 against the proposed project, not the approximately 3,000 acre site. Using the solar development area as the metric for comparison reveals that the relative size of the footprint of Alternative 3 is larger than represented in the Draft EIR. Please revise the last paragraph as follows: “This alternative would consist of constructing a solar energy facility on approximately 992 acres (approximately 33% of the</p> | 16.154 |

Table 1 – Comments

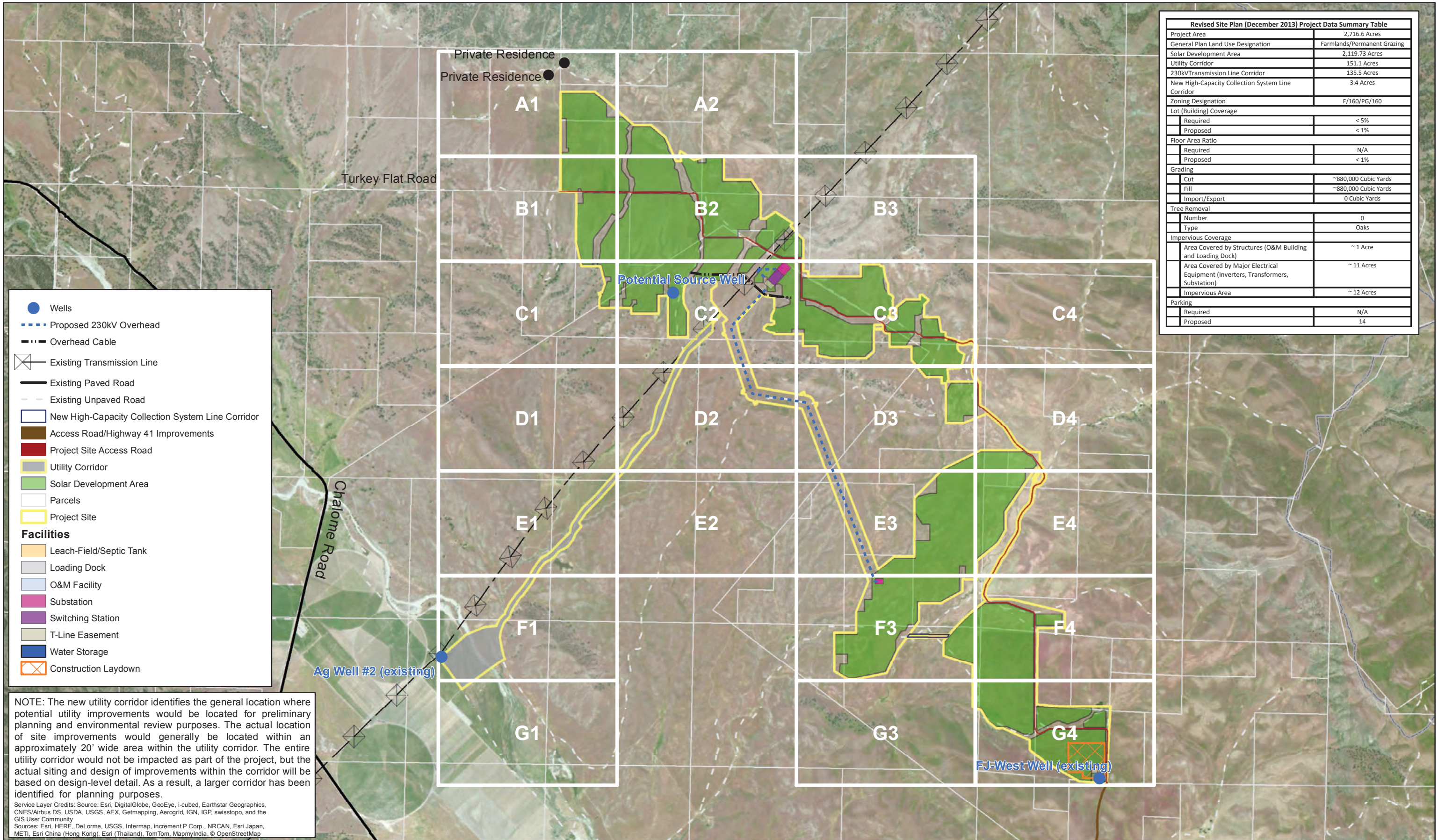
California Flats Solar Project, Draft Environmental Impact Report, County of Monterey, California, August 6, 2014

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| Comment | Document Chapter | Page Number | Figure or Table Number | Comment and/or Reference |
|---------|----------------------------|-------------|------------------------|--|
| | | | | proposed project site 46% of the solar development area for the proposed project). " |
| 154. | Section 7.0 (Alternatives) | 7-24 | | Section 7.4.1, Hydrology and Water Quality, second paragraph: The Draft EIR does not identify potential construction water requirements associated with the Alternative 2. Please revise the first sentence as follows: "Similar to the proposed project, <u>this alternative would require water for dust suppression purposes during construction, as well as water to potable water would be needed to wash the modules and support overall operations at the site.</u> " |
| 155. | Section 7.0 (Alternatives) | 7-28 | TABLE 7-1 | Table 7-1. This table should be updated to reflect any changes in significance for each of the alternatives based on revisions made in response to the comments on Chapter 7 made above. |

16.155

16.156



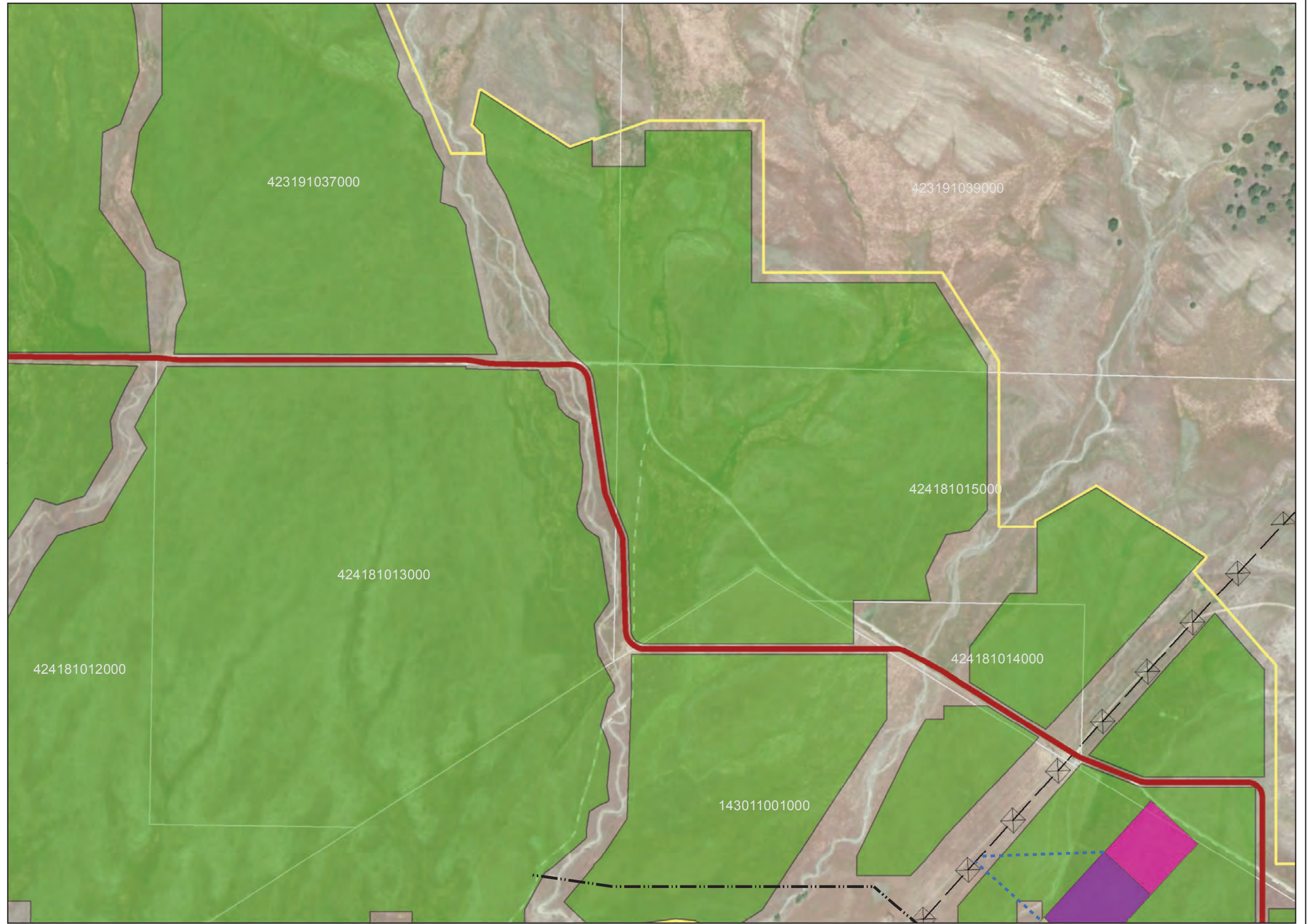
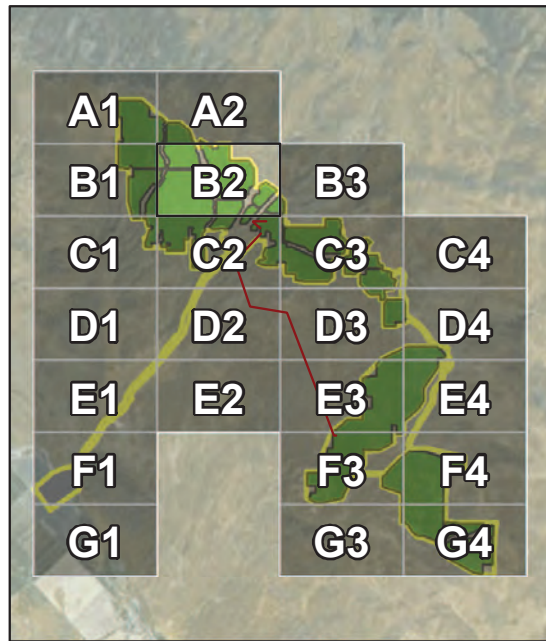
| Revised Site Plan (December 2013) Project Data Summary Table | |
|--|-----------------------------|
| Project Area | 2,716.6 Acres |
| General Plan Land Use Designation | Farmlands/Permanent Grazing |
| Solar Development Area | 2,119.73 Acres |
| Utility Corridor | 151.1 Acres |
| 230kV Transmission Line Corridor | 135.5 Acres |
| New High-Capacity Collection System Line Corridor | 3.4 Acres |
| Zoning Designation | F/160/P/160 |
| Lot (Building) Coverage | |
| Required | < 5% |
| Proposed | < 1% |
| Floor Area Ratio | |
| Required | N/A |
| Proposed | < 1% |
| Grading | |
| Cut | ~880,000 Cubic Yards |
| Fill | ~880,000 Cubic Yards |
| Import/Export | 0 Cubic Yards |
| Tree Removal | |
| Number | 0 |
| Type | Oaks |
| Impervious Coverage | |
| Area Covered by Structures (O&M Building and Loading Dock) | ~ 1 Acre |
| Area Covered by Major Electrical Equipment (Inverters, Transformers, Substation) | ~ 11 Acres |
| Impervious Area | ~ 12 Acres |
| Parking | |
| Required | N/A |
| Proposed | 14 |

- Wells
 - - - Proposed 230kV Overhead
 - - - Overhead Cable
 - Existing Transmission Line
 - Existing Paved Road
 - - - Existing Unpaved Road
 - New High-Capacity Collection System Line Corridor
 - Access Road/Highway 41 Improvements
 - Project Site Access Road
 - Utility Corridor
 - Solar Development Area
 - Parcels
 - Project Site
- Facilities**
- Leach-Field/Septic Tank
 - Loading Dock
 - O&M Facility
 - Substation
 - Switching Station
 - T-Line Easement
 - Water Storage
 - Construction Laydown

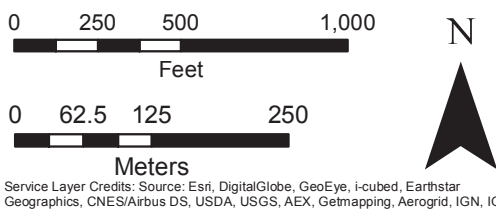
NOTE: The new utility corridor identifies the general location where potential utility improvements would be located for preliminary planning and environmental review purposes. The actual location of site improvements would generally be located within an approximately 20' wide area within the utility corridor. The entire utility corridor would not be impacted as part of the project, but the actual siting and design of improvements within the corridor will be based on design-level detail. As a result, a larger corridor has been identified for planning purposes.

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 Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap





- Wells
 - Proposed 230kV Overhead
 - Overhead Cable
 - Existing Transmission Line
 - Existing Paved Road
 - Existing Unpaved Road
 - New High-Capacity Collection System Line Corridor
 - Access Road/Highway 41 Improvements
 - Project Site Access Road
 - Utility Corridor
 - Solar Development Area
 - Parcels
 - Project Site
- Facilities**
- Leach-Field/Septic Tank
 - Loading Dock
 - O&M Facility
 - Substation
 - Switching Station
 - T-Line Easement
 - Water Storage
 - Construction Laydown



Title: **Site Plan - B2**

File: C:\GIS\GIS_Projects\2011-26 CA Flats Solar\Final Products\Booklet\Booklet Site Plan.mxd

2-483

Date: 9/17/2014

Scale: 1 in = 580 feet

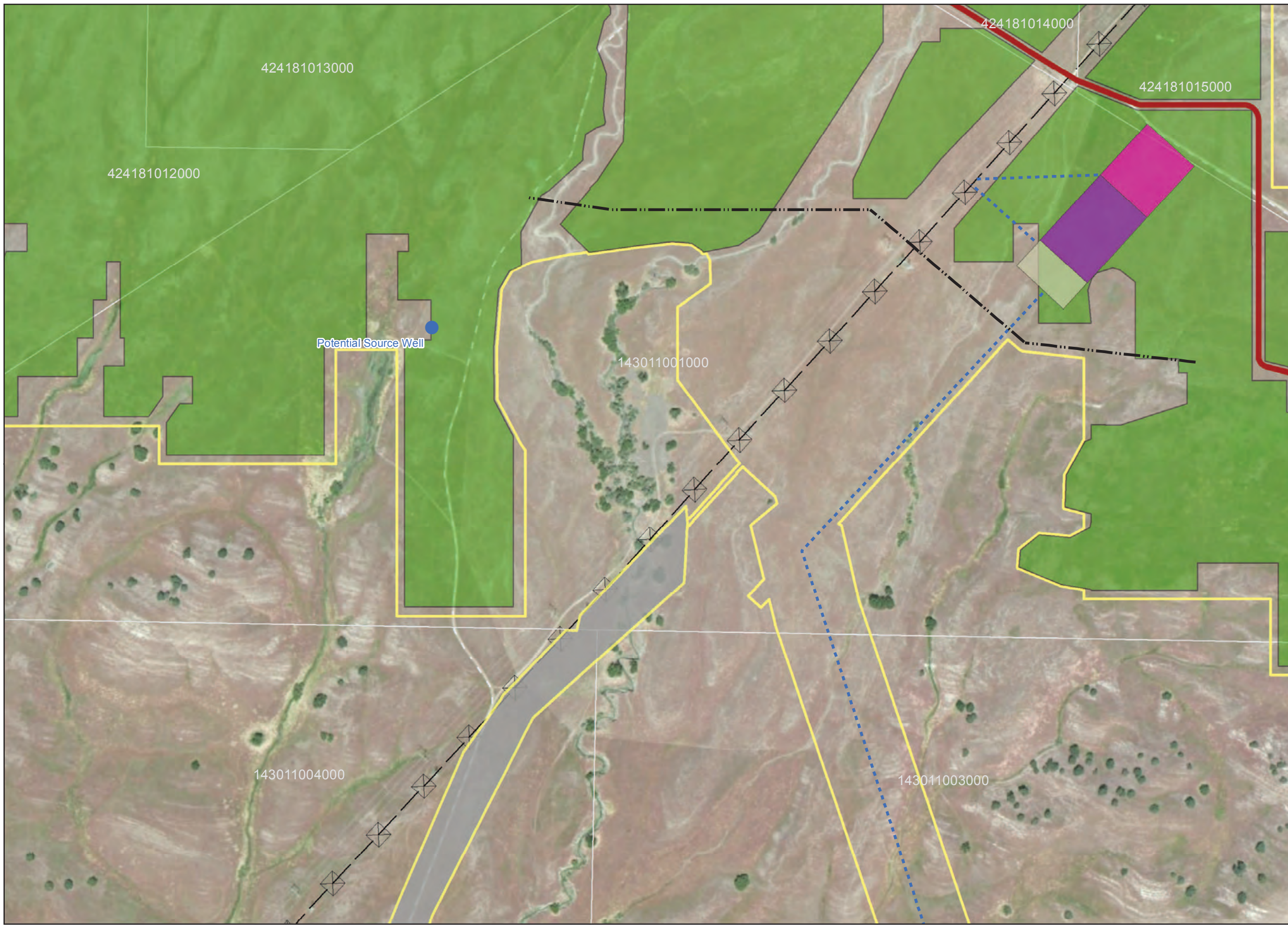
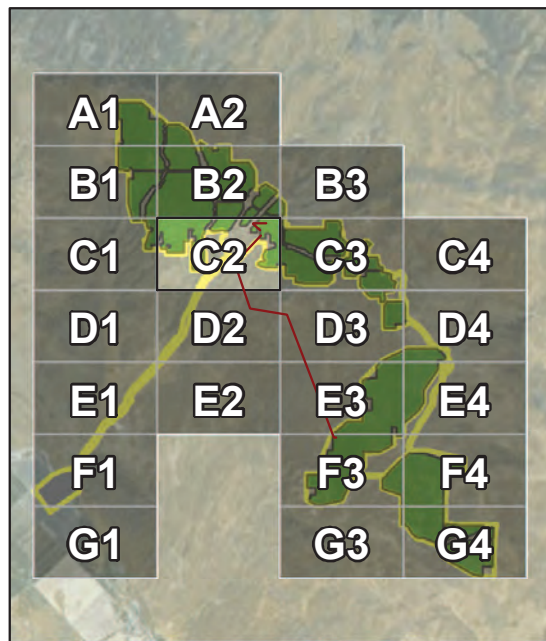
Project: 2011-26

Monterey | San Jose

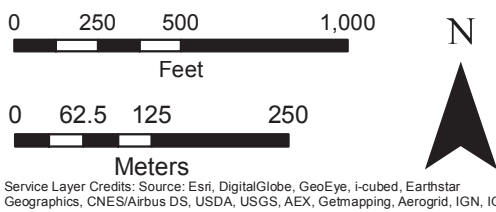
Denise Duffy and Associates, Inc.
Environmental Consultants Resource Planners

947 Cass Street, Suite 5
Monterey, CA 93940
(831) 373-4341



- Wells
 - - - Proposed 230kV Overhead
 - · - · - Overhead Cable
 - X - Existing Transmission Line
 - Existing Paved Road
 - - - Existing Unpaved Road
 - New High-Capacity Collection System Line Corridor
 - Access Road/Highway 41 Improvements
 - Project Site Access Road
 - Utility Corridor
 - Solar Development Area
 - Parcels
 - Project Site
- Facilities**
- Leach-Field/Septic Tank
 - Loading Dock
 - O&M Facility
 - Substation
 - Switching Station
 - T-Line Easement
 - Water Storage
 - Construction Laydown



Title: **Site Plan - C2**

File: C:\GIS\GIS_Projects\2011-26 CA Flats Solar\Final Products\Booklet\Booklet Site Plan.mxd

2-484

Date: 9/17/2014

Scale: 1 in = 580 feet

Project: 2011-26

Monterey | San Jose

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Table 2 – Errata

California Flats Solar Project, Draft Environmental Impact Report, County of Monterey, California, August 6, 2014

California Flats Solar, LLC - September 22, 2014

| Comment | Document Chapter | Page Number | Figure or Table Number | Comment and/or Reference | |
|---------|------------------------------------|-------------|------------------------|---|--------|
| 1. | Executive Summary | ES-4 | Table ES-1 | Please revise the summary of impacts and mitigation measures in Table ES-1 as necessary to ensure consistency with revisions that are made to specific chapters and sections of the EIR. | 16.157 |
| 2. | Chapter 2 (Project Description) | 2-3 | Figure 2-2 | On Figure 2-2, please replace “Turkey Flat Drive” with “Turkey Flat Road.” It is necessary to correct this mistake to avoid confusion. | 16.158 |
| 3. | Chapter 2 (Project Description) | 2-5 | | <p>Section 2.4, Project Location, second paragraph: Please add a figure that depicts each of the project’s geographic characteristics that are discussed in the second paragraph, including the “project area,” “solar generating facility area,” “solar development area,” and “utility corridor.” The description provided in the second paragraph is confusing and a figure showing the geographic characteristics of the project would enhance clarity.</p> <p>In addition, the description of the “utility corridor” should be revised to clarify the nature of the project improvements that would be constructed within the corridor, as follows: “In addition, implementation of the proposed solar project would require the construction <u>and operation of infrastructure improvements (e.g., temporary water lines, redundant communication lines, etc.), as more thoroughly described in Section 2.5.2, within and operation of</u> an approximately 155-acre utility corridor....”</p> | 16.159 |
| 4. | Chapter 2 (Project Description) | 2-13 | | 2.5.1, Solar Modules, Collection Systems and Inverters, third paragraph: Because of the rolling terrain, more flexibility in the design height of the PV module arrays is required. Please revise the second sentence as follows: “Fixed-tilt modules would be up to ten <u>thirteen (13)</u> feet off the ground surface at the highest point of the array depending on the terrain.” | 16.160 |
| 5. | Chapter 2 (Project Description) | 2-14 | | 2.5.1, Solar Modules, Collection Systems and Inverters, third paragraph: The voltage of the high capacity collection line is incorrectly identified as “34.5v” in the first and third sentences. Please revise the text to state the correct voltage of “34.5kV.” | 16.161 |
| 6. | Chapter 2 (Project Description) | 2-15 | | 2.5.1, On-Site Substation, second paragraph: The second sentence should be revised as follows to be consistent with Figure 2-7b: “The substations structures would range in height from approximately 20 to 90 <u>130</u> feet, as shown in Figure 2-7 ab .” | 16.162 |
| 7. | Chapter 2 (Project Description) | 2-16 | | 2.5.2, Access Road Improvements, first paragraph: As currently stated, the third sentence states that the entire access road will be widened to 30 feet, which is not correct. Please revise the third sentence to state: “These improvements would include: widening the access road from 15 to <u>up to 30</u> feet,” | 16.163 |
| 8. | Chapter 2 (Project Description) | 2-78 | | 2.5.2, , first full paragraph: Text incorrectly states that APMs are set forth in section 2.6.5. Please revise as follows: “Best Management Practices (BMPs) for construction and maintenance of roads would be implemented, as well as the Applicant Proposed Measures (APMs) described in Section 2.6.5, | 16.164 |

Table 2 – Errata

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| | | | | as well as the Applicant Proposed Measures (APMs) described in section 2.9.” | |
| 9. | Section 4.1 (Aesthetics) | 4.1-23 | | Section 4.1.3.b, Impact AES-2, third paragraph: As currently stated, the third sentence states that the entire access road will widened to 30 feet, which is not correct. Please revise the third sentence to state: “Visible improvements would include: widening the access road <u>up</u> to 30 feet in all locations,” | 16.165 |
| 10. | Section 4.3 (Air Quality) | 4.3-2, 4.3-25 | TABLE 4.3-1 | Impact AQ-2, Mitigation Measure AQ-2(a): The requirement that all operators of buggy carts take a training course prior to the operation “of any vehicle on site” is overly broad. The requirement to take a training course should only be applied prior to operation of a cart on site, not any vehicle. In addition, the term “buggy” should be deleted because it is vague and could cause confusion when implementing the measure. Please revise the third sentence of this measure as follows: “As an additional measure, all of the cart operators shall be required to complete a buggy cart training course prior to operation of cars <u>any vehicle</u> on site;” | 16.166 |
| 11. | Section 4.3 (Air Quality) | 4.3-3 to 3-4 & 4.3-26 to 3-27 | TABLE 4.3-1 | Impact AQ-2: The mitigation measure in the last bulleted item requiring each of the four dust monitors to file monthly reports is not practicable. The dust monitors should provide their reports to a “site dust manager” that would be responsible for collecting the reports from the dust monitors and providing a comprehensive report to the Monterey County RMA – Planning Department. Please revise this measure as follows: “The contractor or builder shall designate a <u>site dust manager</u> and up to four persons to monitor dust” | 16.167 |
| 12. | Section 4.4 (Biology) | 4.4-13 & 4.4-17 to 4-28 | FIGURES 4-4.1 & 4.4-2a to 4-2f | Element Power is incorrectly attributed as having prepared the referenced figures. Please revise these figures to provide the correct attribution as follows: “Source: Amy Sparks (H.T. Harvey & Associates) and First Solar, 2014”. | 16.168 |
| 13. | Section 4.4 (Biology) | 4.4-15 | TABLE 4.4-2 | Table 4.4.2 incorrectly states in the “Solar Generating Facility Area” column that the acreage for Willow-cottonwood riparian forest is 2.53 acres. The correct value is 1.72 acres. Please revise Table 4.4-2 accordingly. | 16.169 |
| 14. | Section 4.4 (Biology) | 4.4-33 | | Section 4.4.2, Aquatic / Wetland Habitats, first paragraph: The first sentence incorrectly uses the term “project site,” when the intended meaning is the “project impact area.” Please revise the first sentence as follows: “Aquatic and wetland features compose a small portion of the BSA, and combined are present on approximately 5.32 acres within the project <u>site</u> impact area (Table 4.4-2; Figures 4.4-2a - 4.4-2d).” | 16.170 |
| 15. | Section 4.4 (Biology) | 4.4-36 | | Section 4.4.2, Seasonal Wetland, first full paragraph: The first sentence incorrectly references “Figure 3a”. Please revise the first sentence with the correct reference as follows: “. . . watersheds to the northeast (Figure 3a <u>4.4-2a</u>).” | 16.171 |

Table 2 – Errata

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|---------|-----------------------|----------------|------------------------|---|--------|
| 16. | Section 4.4 (Biology) | 4.4-40 to 4-41 | | Section 4.4.2, Sensitive Plant Communities and Critical Habitat, carryover paragraph: The acreage of sensitive communities referenced in the second sentence in this paragraph have not been updated to match the BRIA addendum’s project impact acreages. In addition, because “project site” is defined by the DEIR as an approximately 3000-acre area that encompasses the SGFA and the Utility Corridor and Access Road, the use of that term in this sentence is inaccurate and potentially confusing. Please revise the second sentence as follows: “. . . however, Wildflower Fields are present on 540.58 <u>551.87</u> acres within the BSA <u>Solar Generating Facility Area</u> and 0.24 <u>7</u> acres in the Access Road, and 0.13 acres within the Utility Corridor. <u>This community was not detected within the Utility Corridor.</u> ” | 16.172 |
| 17. | Section 4.4 (Biology) | 4.4-41 | | Section 4.4.2, Special Status Plants and Animals, first two paragraphs: Hoover’s eriastrum and Mason’s neststraw are said to have no potential to occur, which contradicts the determination in Table 4.4-4 for the Utility Corridor. Also, the description of 2013 rare plant survey coverage is incorrect. The 2013 rare plant surveys did not cover the Utility Corridor, because it was not part of the project at that time (which is correctly noted later in the Draft EIR). Please revise the third sentence in the first paragraph as follows: “. . . Table 4.4-4 have at least some potential to occur within the BSA except for the yellow warbler (<i>Dendroica petechia</i>), Indian valley spineflower (<i>Aristocapsa insignis</i>), Hardham’s suncup (<i>Camissonia harhamiae</i>), Hoover’s eriastrum (<i>Eriastrum hooveri</i>) , delicate blue cup (<i>Githopsis tenella</i>), and San Antonio hill monardella (<i>Monardella antonina</i> ssp. <i>antonina</i>) , and Mason’s neststraw (<i>Stylocline masonii</i>). ” Please revise the first sentence in the second paragraph (entitled “Special Status Plants”) as follows: “Special status plant surveys were conducted from March through July 2013 across the BSA <u>SGFASA and Access Road</u> in accordance with protocols established by the U.S. Fish and Wildlife Service (USFWS), CDFW, and CNPS.” | 16.173 |
| 18. | Section 4.4 (Biology) | 4.4-43 | FIGURE 4.4-3 | Figure 4.4-3 depicts an older, out-of-date site plan, which does not show the Utility Corridor. HT Harvey has provided an updated figure to the County to use in the Draft EIR. Please attribute the new figure as follows: “Source: Amy Sparks (H.T. Harvey & Associates) and First Solar, 2014”. | 16.174 |
| 19. | Section 4.4 (Biology) | 4.4-54 | TABLE 4.4-4 | Table 4.4-4 incorrectly states in the “Potential for Occurrence within Access Road” column that <i>Convolvulus simulans</i> is absent. The 2014 survey covered a wider corridor around the Access Road; the revision provides updated information. <i>Convolvulus simulans</i> was not detected during protocol rare plant surveys in 2013, so was considered absent from the Access Road. However, this species was detected in the Access Road during the 2014 surveys. Please revise the table as follows: “ Absent. Not observed in Access Road corridor during 2013 protocol rare plant surveys. Present. Observed in Access | 16.175 |

Table 2 – Errata
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|---------|-----------------------|----------------|------------------------|---|--------|
| | | | | <u>Road corridor in 2014.</u> | |
| 20. | Section 4.4 (Biology) | 4.4-64 | TABLE 4.4-4 | Table 4.4-4, bald eagle incorrectly states that “Species [bald eagle] nesting distribution is currently expanding.” There is no factual support for this statement in the vicinity of the project and it should be removed from the table. | 16.176 |
| 21. | Section 4.4 (Biology) | 4.4-67 | TABLE 4.4-4 | Table 4.4-4, Coast-horned lizard. Potential for Occurrence within the Utility Corridor. Moderately suitable habitat present in the <u>utility corridor project site</u> . There is a record for the species within 3 miles to the south. | 16.177 |
| 22. | Section 4.4 (Biology) | 4.4-75 | | Section 4.4.2, Oregon Vesper Sparrow: The information in the Draft EIR contains out of date information with respect to the Utility Corridor. Please insert the following paragraph after the end of this paragraph: <u>“Note that the Utility Corridor was added to the project description after the majority of avian surveys were completed. However, the potential for occurrence can be evaluated, and Table 4.4-4 identifies those special status avian species with potential to occur in the Utility Corridor.”</u> | 16.178 |
| 23. | Section 4.4 (Biology) | 4.4-77 | | Section 4.4.2, San Joaquin Pocket Mouse: The information in the Draft EIR contains out of date information with respect to the Utility Corridor. Please insert the following paragraph after the end of the second paragraph (and before “Special Status Invertebrates”): <u>“Note that the Utility Corridor was added to the project description after the majority of mammal surveys were completed. However, the potential for occurrence can be evaluated, and Table 4.4-4 identifies those special status mammal species with potential to occur in the Utility Corridor.”</u> | 16.179 |
| 24. | Section 4.4 (Biology) | 4.4-77 to 4-78 | | <p>Section 4.4.2, Special Status Invertebrates, carryover paragraph: The description of survey coverage is incorrect, given the Draft EIR’s definition of the BSA. The 2012 and 2013 vernal pool branchiopod surveys did not cover the UCSA, because it was not part of the project at that time (which is correctly noted several pages later). However, prior text in the Draft EIR clearly included the UCSA in the BSA as defined. Please revise the second sentence in the paragraph as follows: “Protocol vernal pool branchiopod surveys were conducted within the <u>BSA, SGFASA and ARSA</u> to determine the presence or absence of listed vernal pool branchiopod species.”</p> <p>In addition, please insert the following paragraph after the carryover paragraph: <u>“Note that the Utility Corridor was added to the project description after the branchiopod surveys were completed. However, the potential for occurrence can be evaluated, and Table 4.4-4 identifies those special status branchiopod species with potential to occur in the Utility Corridor.”</u></p> | 16.180 |

Table 2 – Errata

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| Comment | Document Chapter | Page Number | Figure or Table Number | Comment and/or Reference | |
|---------|-----------------------|---------------------------|------------------------------|--|--------|
| 25. | Section 4.4 (Biology) | 4.4-79 | FIGURE 4.4-7 | Figure 4.4-7 has a misleading title and incorrectly attributes Element Power as the source. The title is misleading because Figure 4.4-7 as depicted does not show impacts to habitats, rather it depicts wetland features that will not be impacted by the Project. The intent of Figure 4.4-7 was to: clearly depict survey coverage for the various surveys; what was considered to be potentially suitable habitat for branchiopods; and what wetlands had branchiopods detected within them within the SGFASA and ARSA. Please change the title to “Vernal Pool Branchiopod <u>Survey Coverage and Occupied Habitat Impacts.</u> ” In addition, correct attribution for Figure 4.4-7 is: “Source: Amy Sparks (H.T. Harvey & Associates) and First Solar, 2014”. | 16.181 |
| 26. | Section 4.4 (Biology) | 4.4-101 & 4.4-109 to 4-14 | FIGURES 4.4-8 to 4-11 | Element Power is incorrectly attributed as the source for Figures 4.4-8 to 4.4-11. Please revise each of these figures to correct the attribution as follows: “Source: Amy Sparks (H.T. Harvey & Associates) and First Solar, 2014”. | 16.182 |
| 27. | Section 4.4 (Biology) | 4.4-107 | TABLE 4.4-7 | Table 4.4-7 incorrectly states the amount of California tiger salamander habitat impact acreage in the “0 – 1844 feet” row, under the “Solar Generating Facility Area, Total” column. Please correct the acreage as follows: “ 88.8885.88 ”. | 16.183 |
| 28. | Section 4.4 (Biology) | 4.4-138 | | Section 4.4.3.b, Mitigation Measure B-1(p), Wildlife-Friendly Fence Design, Mitigation Timing: The requirement that wildlife-friendly fence design plan be submitted to USFWS and CDFW is not warranted, as neither agency has approval authority over the fence design. Please revise Mitigation Timing as follows: “The Wildlife-friendly fence design plans shall be submitted by the applicant to the County, CDFW, and USFWS for review and approval by the County prior to issuance of grading permits.” | 16.184 |
| 29. | Section 4.4 (Biology) | 4.4-154 to 4-159 | | Section 4.4.3.b, Impact B-2: There are numerous incorrect references to Table 4.4-7 throughout the discussion of Impact B-2. The correct reference is to Table 4.4-8. Please revise this section accordingly. | 16.185 |
| 30. | Section 4.4 (Biology) | 4.4-156 | | Section 4.4.3.b, Impact B-2, Mixed Oak Woodlands, Permanent Impacts: The current text misstates the permanent impacts to mixed oak woodlands. The actual permanent impact to mixed oak woodland will be 0.1 acre, not 0.01 acre as written. Please revise this paragraph as follows: “The project has been designed to avoid oak woodland habitat where possible; however, project activity could result in permanent impacts to up to 0.01 acres of oak woodland . . .” | 16.186 |
| 31. | Section 4.4 (Biology) | 4.4-158 | TABLE 4.4-8 | Section 4.4.3.b, Impact B-2, Table 4.4-8: No acreages are provided in Table 4.4-8 for three land cover types: Agricultural, Cottonwood Alluvial Woodland, and Alluvial Intermittent Stream. Please insert the acreages for these three land cover types to Table 4.4-8 or add note explaining why they are absent. All acreages can be found in Table 5 of the H.T. Harvey & Associates November 2013 Site Plan BRIA Addendum. | 16.187 |

Table 2 – Errata

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| 32. | Section 4.4 (Biology) | 4.4-185 | FIGURE 4.4-12 | Element Power is incorrectly attributed as the source for Figure 4.4-12. Please correct the attribution as follows: “Source: <u>Amy Sparks (H.T. Harvey and Associates, Element Power and First Solar, 2014.)</u> ” | 16.188 |
| 33. | Section 4.9 (Hydrology and Water Quality) | 4.9-2 & 4.9-24 | TABLE 4.9-1 | Impact HYD-4, Mitigation Measure HYD-4: The Mitigation Measure should be updated to reference an addendum to the Preliminary Drainage Report prepared by the Wallace Group. Please revise the second sentence in the Measure as follows: “As noted in the Preliminary Drainage Report (RBF, 2013), <u>and in the Preliminary Drainage Analysis Addendum (Wallace Group 2014)</u> , measures to reduce runoff by promoting infiltration would be selected and configured as part of this final design considering local impacts from proposed improvements, detailed grading plans and maintenance requirements.” | 16.189 |
| 34. | Section 4.9 (Hydrology and Water Quality) | 4.9-3 | | Section 4.9-2, Watershed: The discussion of impaired waterbodies in the Cholame Creek watershed should be clarified to provide additional background related to the status of the watershed and the environmental baseline. Please insert the following sentence before the last sentence in the paragraph: “ <u>The RWQCB is currently in the process of re-examining the impairment of waterbodies in the watershed, as well as the underlying causes of impairment.</u> ” | 16.190 |
| 35. | Section 4.9 (Hydrology and Water Quality) | 4.9-14 | | Section 4.9.3.a, Methodology, second paragraph: The Draft EIR does not acknowledge that the project includes measures (i.e., APM-1) to address the potential environmental effects associated with project decommissioning. Please insert the following after the last sentence in the paragraph to provide additional clarification and amplify the analysis in the Draft EIR: “ <u>As described in Section 2.0, Project Description, the project includes APM-1 to ensure that all potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.</u> ” | 16.191 |
| 36. | Section 4.9 (Hydrology and Water Quality) | 4.9-25 | | Section 4.9.3.b, Impact HYD-5, first paragraph: The discussion in this paragraph and Impact HYD-5 analysis should be revised to reference an addendum to the Preliminary Drainage Report prepared by the Wallace Group. The first sentence in the paragraph should be revised to include the following text after: “The California Flats Solar Project Preliminary Drainage Report (RBF, 2013) included a preliminary hydraulic analysis to determine potential flood hazards relating to flow depths and velocities throughout the project site. <u>The Preliminary Drainage Analysis Addendum (Wallace Group 2014) provided additional review and recommendations regarding flood hazards, and included the private access road in the review.</u> ” | 16.192 |



H. T. HARVEY & ASSOCIATES

ECOLOGICAL CONSULTANTS



**Results of the 2013 Scent Dog Surveys
California Flats Solar Project
Monterey County**

Project # 3544-01



Prepared for:

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Prepared by:

H. T. Harvey & Associates



January 2014



Executive Summary

The California Flats Solar Project (Project) is a 280-megawatt photovoltaic solar power plant proposed for development in southeastern Monterey County, California. When approved, the solar facility and related infrastructure (Project site) will be built within an approximately 2562-acre site in southeastern Monterey County, California, near the borders of Monterey, San Luis Obispo, Kings, and Fresno counties (Figure 1). The overall development will include improvements to an existing access road and its connection to State Route 41 (Hwy 41). The 2562-acre Project site and access road are collectively termed the “Project impact area”.

Numerous wildlife species are known to occur in the region, including the state- and federally listed endangered San Joaquin kit fox (*Vulpes macrotis mutica*; kit fox). To assess the occurrence of San Joaquin kit fox on the Project site and within the vicinity, H. T. Harvey & Associates conducted scent dog surveys during September and October 2013. The survey area included the Project site, a portion of the existing access road, and two locations within the surrounding region, Control Area A and Control Area B, considered to have the potential to support kit fox. This report summarizes the results of the scent dog surveys.

The scent dog team, comprising a dog, its handler, and a field assistant, conducted systematic surveys by walking a representative sample of the survey area along transects at either 0.50-mile or 0.25-mile intervals. The dog was trained to target and alert to San Joaquin kit fox scat. Predetermined transects were generally followed; however, transect spacing in certain areas was alerted to survey areas where kit fox typically defecate, such as on and around fence posts, along unpaved roads and other linear features, and around animal carcasses, cement objects, and trash.

The team collected all scat alerted to by the scent dog, and DNA analysis of the scat was attempted to confirm its species identity. As a control measure and to make use of opportunistic observations, the team collected potential carnivore and omnivore scats of a size comparable to kit fox scats from the survey area. These scats were categorized as a *pass* if the dog investigated and sniffed the scat directly and moved on, or as *opportunistic* if the dog did not investigate the scat or was never in a position to smell the scat (i.e., was never downwind of the scat). These scats were also analyzed for DNA species confirmation.

A single scat sample on the Project site was alerted to by the dog, one scat sample was alerted to on the southern portion of the existing access road, one was alerted to immediately west of the access road within Control Area B, and 14 scat samples were alerted to by the dog south of Hwy 41 in Control Area B. The dog did not alert to any scat samples in Control Area A. Of these 17 scat samples, 16 were subjected to DNA analysis. The remaining sample contained no fecal material suitable for DNA analysis. Four of the 16 analyzed samples were confirmed as San Joaquin kit fox scat, based on mitochondrial DNA (mtDNA) amplification and sequencing. One sample was confirmed through DNA analysis to be red fox (*Vulpes vulpes*) scat, and the remaining 11 samples failed DNA amplification, most likely due to DNA degradation, judging

from the aged and weathered condition of the scat. Two additional samples, observed and collected by the dog handler and a field assistant, also successfully amplified kit fox mtDNA, resulting in a total of six DNA-confirmed kit fox samples and 12 non-DNA-confirmed kit fox samples.

These data, as well as results from systematic burrow surveys, spotlighting surveys, and camera surveys (HTH 2013), indicate that occurrence of San Joaquin kit fox on the Project site is low. Similarly, the occurrence of San Joaquin kit fox within Control Area A appears to be low based upon the results of scent dog surveys. In contrast, the occurrence of San Joaquin kit fox within the southern portion of the existing access road and Control Area B is greater than within the Project site and Control Area A based upon the results of the scent dog surveys; 90% of the kit fox scats were found in Control Area B and its vicinity. Nuclear microsatellite analysis strongly supported the confirmation of three kit fox individuals in the study area. Of these three individuals, two individuals were detected south of Hwy 46 and one individual was detected along the existing access road. .

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Section 1.0 Introduction

1.1 Project Description and Purpose of Scent Dog Surveys

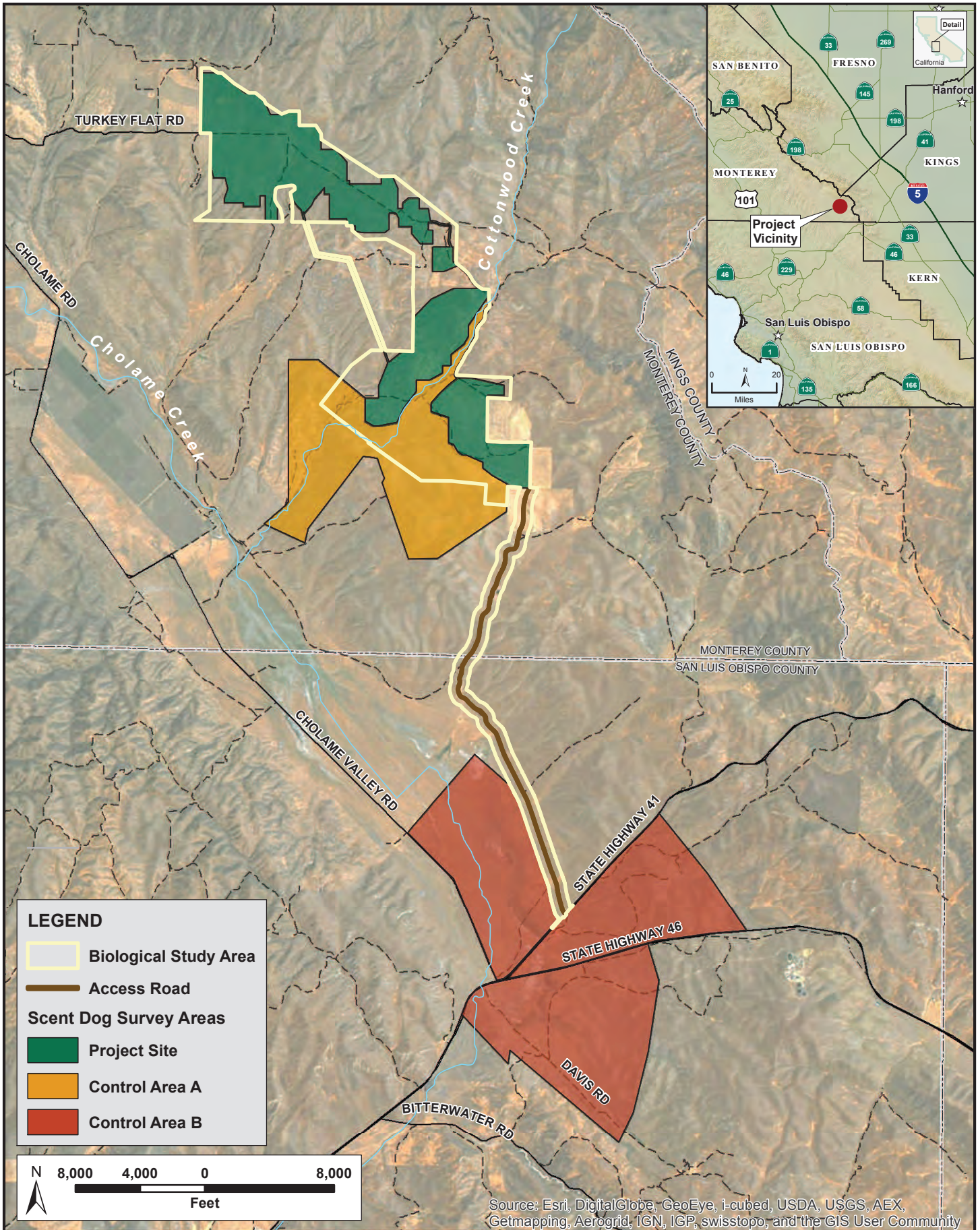
The California Flats Solar Project (Project) is a 280-megawatt photovoltaic solar power plant proposed for development in southeastern Monterey County, California (Figure 1). When approved, the solar facility and related operational infrastructure (Project site) will be built on approximately 2562-acres in an unincorporated area of southeastern Monterey County and northeastern San Luis Obispo County, near the borders of Kings and Fresno counties.

The Project will include construction, installation, and operation of energy-related infrastructure (e.g., solar panels, inverters, substations, and new power poles and transmission lines) and improvements needed to operate and maintain facilities (e.g., buildings, internal roadways, access roads, fencing, and lighting). The Morro Bay–Gates 230-kilovolt transmission line crosses the Project site, with capacity sufficient to accommodate the new power plant. The overall development will also include improvements to an existing access road and its connection to State Route (Hwy) 41, approximately 5 miles south of the Project site. The access road/Hwy 41 improvement areas will encompass approximately 53 acres.

The Project site is located in a landscape dominated by gently rolling terrain and grasslands, interspersed with several, mostly ephemeral, riparian corridors and drainages. California annual grassland, dominated by non-native grasses and a healthy complement of native forbs, is the predominant habitat in the region. As part of a working cattle ranch, the Project site and surrounding lands also contain ranching infrastructure (water troughs, roads, and fencing).

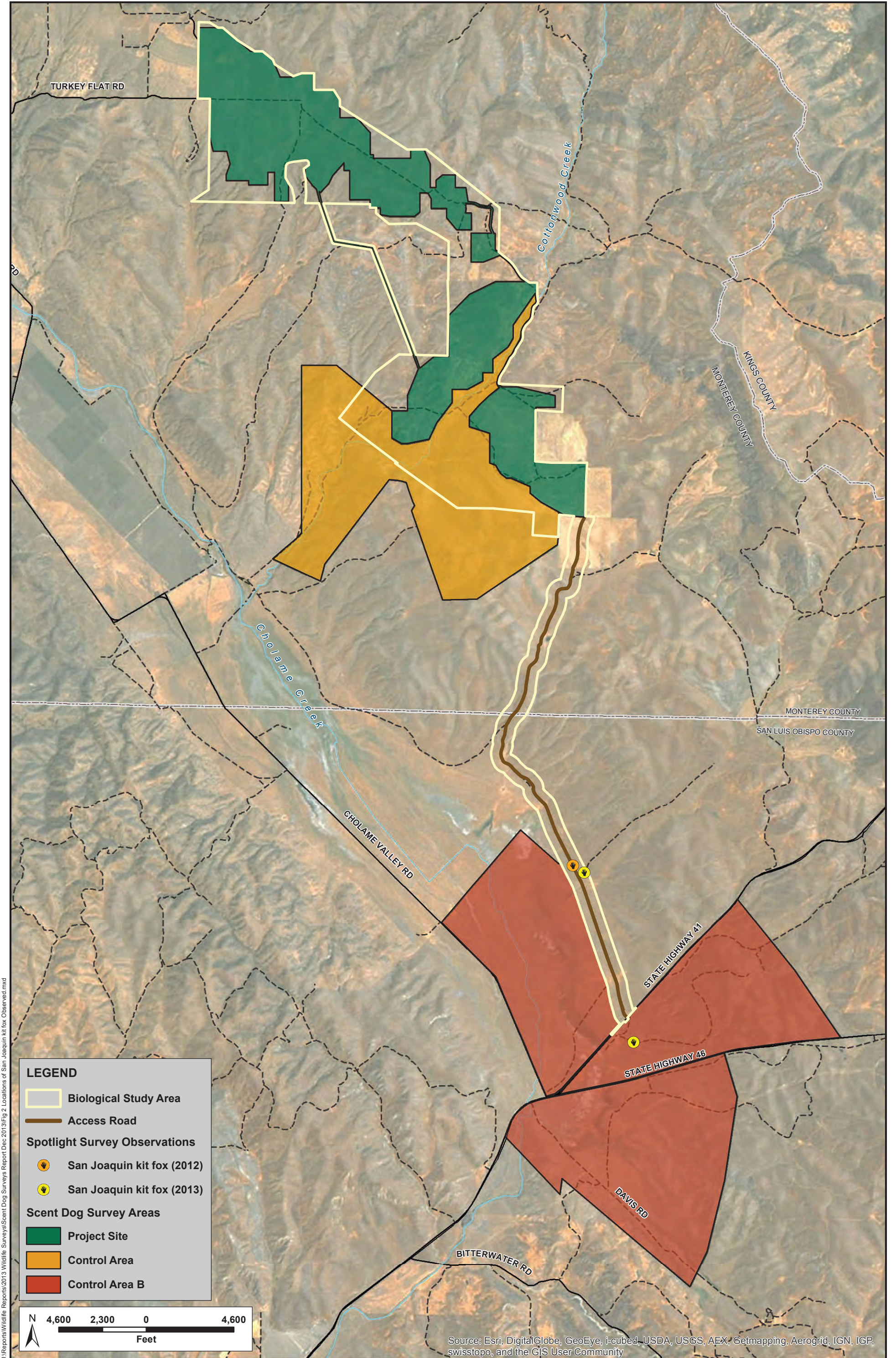
This report summarizes the results of scent dog surveys conducted in September and October 2013 on the Project site and in its vicinity. The primary goal of the scent dog surveys was to assess the relative occurrence of the state- and federally listed endangered San Joaquin kit fox (*Vulpes macrotis mutica*; kit fox) within the Project impact area. The survey area included the 2562-acre Project site, 120-acres of the Hwy 41/access road improvement area, plus 7967-acres of land in the Project vicinity to provide a relative comparison. The 7967-acres represented two distinct control areas south of the Project site. Control Area A (2206-acres) is located in the vicinity of Cottonwood Creek and the proposed utility corridor for the Project, while Control Area B (5761-acres) surrounds the intersection of Hwy 41 and Hwy 46 (Figure 1). The *Habitat Connectivity Planning for Selected Focal Species in the Carrizo Plain* (Penrod et al. 2010) characterizes the habitats in the survey area as having medium to high suitability for the species and the *San Joaquin Kit Fox Demography, Ecology, and Conservation in the Northern Carrizo Plains* (Cypher and Fiebler 2013) characterized isolated areas within the survey area as having moderate to high suitability, with the majority of the survey area being characterized as low to moderate suitability for kit fox. H. T. Harvey & Associates (HTH) ecologists conducted reconnaissance assessments of the survey areas and confirmed that the habitats within the survey areas are capable of supporting kit fox (Figure 1).

J:\Reports\Wildlife Reports\2013 Wildlife Surveys\Scnt Dog Surveys Report Dec 2013\Fig 1 Vicinity and Site Map1.mxd



San Joaquin kit fox are primarily nocturnal, active throughout the year, and typically occur in annual grassland or mixed shrub/grassland habitats throughout low, rolling hills and in valleys (Cypher et al 2000). Kit fox will use grazed grasslands and grasslands with scattered structures such as powerlines and wind turbines. They will also live adjacent to, and forage in, tilled and fallow fields and irrigated row crops. The majority of the Project site represents moderately suitable habitat for kit fox, comprising California annual grasslands on gently rolling hills. However, the Project site is somewhat isolated from the Cholame Valley floor by relatively steep, rugged slopes that are not suitable habitat, and which are generally avoided by kit fox because they would be more susceptible to predation, particularly by coyotes, in these areas (Warrick and Cypher 1998). Nonetheless, there are places between the Project site and the valley floor where drainages have formed relatively wide areas with gentler slopes that kit fox could use to access the uplands encompassing the Project site.

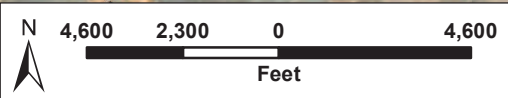
HTH ecologists reviewed California Natural Diversity Database (CNDDB) records in the vicinity of the Project site and confirmed 47 records of San Joaquin kit fox occurrences within approximately 20 miles of the Project site, with several sightings as recent as 2005. The nearest CNDDB-recorded observation of the species occurred approximately 3.5 miles south of the Project site and approximately 1.5 miles southwest of the existing access road. To further assess and document kit fox occurrence, HTH conducted surveys of the area in the summers of 2012 and 2013; these consisted of ground surveys for burrows and sign, camera station surveys, and spotlight surveys of the Project site and its vicinity. No San Joaquin kit fox or sign of their occurrence on the Project site was observed during the ground surveys for burrows or camera station surveys. Two San Joaquin kit fox were observed on the existing access road, and one kit fox was observed approximately 2.6 miles southeast of Control Area B during the spotlight surveys (Figure 2). No San Joaquin kit fox were observed on the Project site or in Control Area A during the spotlight surveys. The results of the spotlight surveys are summarized in detail in the *California Flats Solar Project Spotlight Surveys for San Joaquin Kit Fox and American Badger 2012–2013* (HTH 2013).



J:\Reports\Wildlife Reports\2013 Wildlife Surveys\Scout Dog Surveys\Scout Dog Surveys\Report Dec 2013\Fig 2 Locations of San Joaquin kit fox Observed.mxd

LEGEND

- Biological Study Area
- Access Road
- Spotlight Survey Observations**
- San Joaquin kit fox (2012)
- San Joaquin kit fox (2013)
- Scent Dog Survey Areas**
- Project Site
- Control Area
- Control Area B



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

1.2 Overview of Scat Detection by Scent Dogs

Ecological detection dogs (*scent dogs*) are a powerful survey tool. With a properly trained dog and a skilled trainer and handler, a scent dog is highly effective and accurate in detecting animal species sign (usually scat), bird nests, carcasses, invasive plant or animal species, rare plants, and plant pests/diseases. Using trained dogs to detect scats of particular species is “a more systematic and efficient approach to scat detection” than relying on human surveyors, and is an effective way to confirm species presence in an area (MacKay et al. 2008). Scats are targeted because they can provide more information and be a more accessible source of DNA than materials such as hair, skin, feathers, nails, bones, or saliva (Kohn and Wayne 1997). By systematically sampling scats over a large geographic area, population characteristics such as sex ratio, relatedness, habitat, and home ranges may be estimated (Kohn and Wayne 1997; Kohn et al. 1999; Wasser et al. 2004). Scent dogs are more efficient than humans at finding these scats for demographic and population studies (Smith et al. 2003); for example, dogs searching for kit fox scats can regularly distinguish them from the scat of other species, such as coyote (*Canis latrans*), red fox (*Vulpes vulpes*), grey fox (*Urocyon cinereoargenteus*), domestic dog (*Canis lupus familiaris*), bobcat (*Lynx rufus*), and American badger (*Taxidea taxus*). Trained scent dogs are able to find up to four times more kit fox scats along transects than an experienced human, and even the worst detection rates by scent dogs in difficult scenting conditions was found to be as good as that of humans (Smith et al. 2001, 2003).

1.3 Environmental Factors Affecting Scent Dog Surveys

Air temperature, vapor pressure, and the direction and variability of wind currents all affect how scent disperses through the air (Syrotuck 2000; Snovak 2004) and influence the evaporation rate and the bacterial activity of the scent source. Heat increases bacterial activity, resulting in increased gas release from the scent source. Increased precipitation typically increases the decomposition rate.

Although heat increases the number of molecules released into the air from a target scent, if the scent dog is not properly cared for, excessive heat has the potential to hamper a scent dogs’ olfactory senses, diminish stamina, and may limit its ability to work for extended periods. Dogs pant to decrease their body temperature. During pronounced panting, a majority of air intake is through the dogs’ mouth, versus the nose where olfactory senses are located. The proportionate result is the scent dog will require more time to investigate a scent trail during excessive heat. In addition, dehydration caused by improper care during excessive heat causes dogs to have dry noses, which could further inhibit olfactory senses.

With the correct equipment, hydration, and breaks, scent dogs are able to tolerate high temperatures and continue to detect targets at high rates. To overcome potential heat-related environmental hindrances during the scent dog surveys described herein, the HTH scent dog wore protective equipment (Ruffwear® Swamp Cooler) that uses evaporative cooling to assist the dog in lowering its body temperature. Additionally, the team performed surveys during the coolest part of the day, generally from half an hour before sunrise until

temperatures reached the mid-80s. Frequent breaks were taken during the survey, especially when temperatures exceeded 75°F, to maintain hydration of the scent dog and allow it to rest in the shade.

Section 2.0 Methods

2.1 Scent Dog Training

Luna (the scent dog that performed the survey) is one of HTH's highly trained scent dogs. She is a shelter-rescued, black Labrador retriever/border collie/shepherd mix who was selected and trained during a six-month period through industry-accepted scent dog training methods (Smith et al. 2001; Wasser et al. 2004). Her handler used play motivation to reward the dog for sniffing a target scent; this method results in the dog being classically conditioned to recognize San Joaquin kit fox scat (i.e., the dog makes a positive association between the target scent of kit fox scat and playing with the ball). She was then trained to offer a passive alert (i.e. sit next to the target scent and remain sitting until the handler could confirm the target). Once a target is confirmed, she is rewarded with a 30 second play session. Training in detection of San Joaquin kit fox scats was conducted using samples known to belong to San Joaquin kit fox: the scat was either collected from captive San Joaquin kit fox at the California Living Museum (in Bakersfield) or from free-ranging San Joaquin kit fox observed defecating by HTH biologists. In addition, Luna was "trained off" of non-target scents that are potentially similar to San Joaquin kit fox scat (e.g., red fox, grey fox, and coyote scat). Non-target canid scats of all sizes and condition were collected from areas in San Luis Obispo and Creston, California, where red fox, grey fox, and coyote occur, but San Joaquin kit fox are absent.

2.2 Survey Methods

The scent dog surveys were conducted on 16 days between 12 September and 23 October 2013. Daily survey hours were selected by the handler according to the weather forecast, and depended on environmental factors that could affect the dog's performance, health, and safety. Surveys generally were not performed on days when temperatures were predicted to exceed 90°F, and surveys generally occurred only three days per week, to allow the scent dog to recover physically and to maintain its physical and mental condition.

The systematic surveys conducted by the scent dog team involved the handler covering a representative portion of the survey area by initially walking transect lines along a 0.25-mile interval. The survey effort began in the southern portion of the survey area, along the existing access road and in Control Area B (Figure 1). Due to the abundance of target scents (kit fox scat) in the survey area, the survey took longer during the first two days than anticipated; therefore, throughout the remainder of the survey, the team generally used 0.50-mile transect intervals. The total transect lengths for the Project site, existing access road, and control areas are shown in Table 1 below. The survey rate (transect miles per study area acreage) was approximately twice as much on the Project site, as within the control areas, because understanding occurrence within the Project site was of primary importance.

Table 1. Areas of the Project Site, Control Area A, and Control Area B, and Scent Dog Survey Transect Lengths

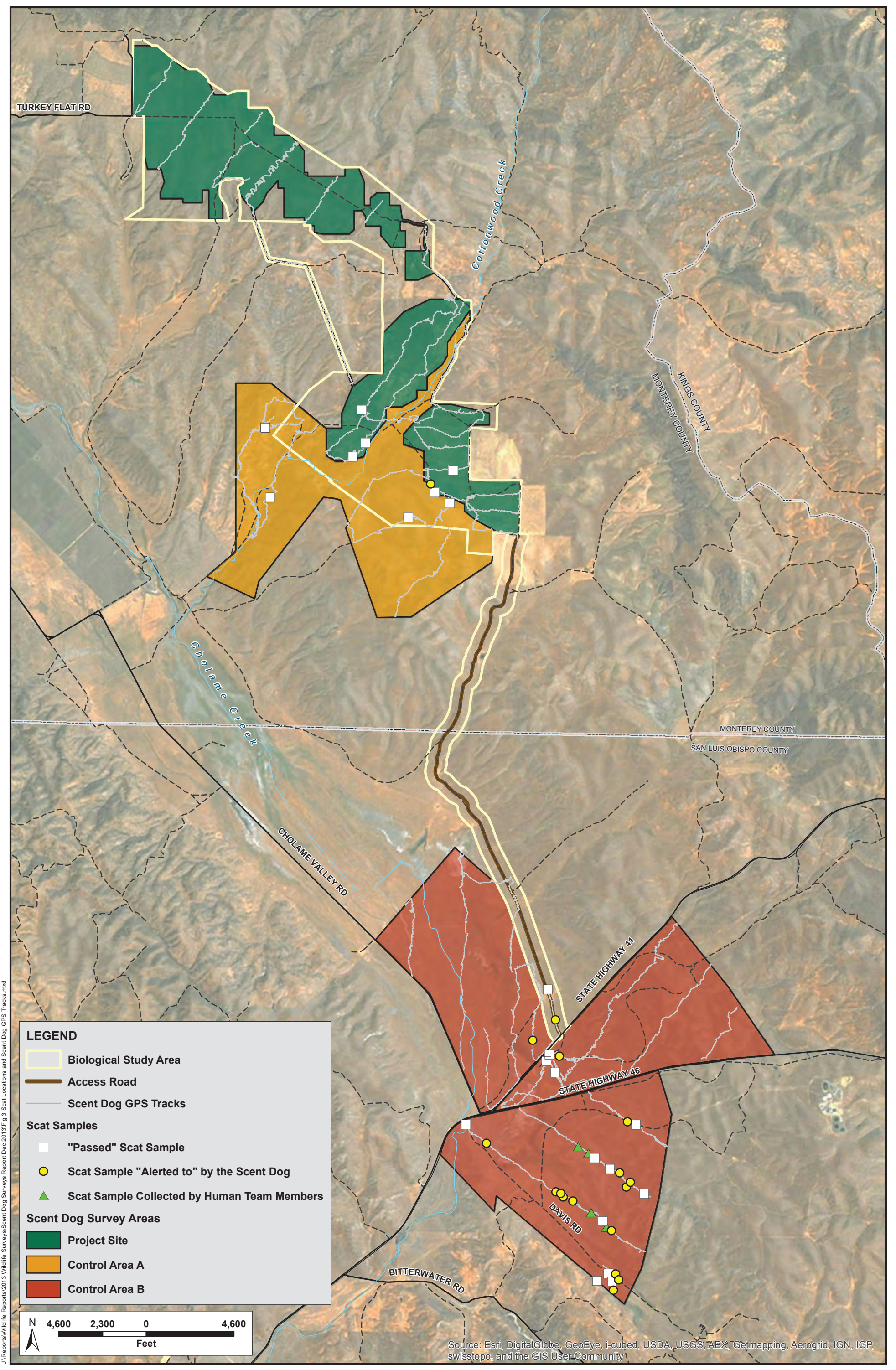
| Location | Area (acres) | Total Transect Length (miles) |
|-------------------------------------|---------------------|--------------------------------------|
| Project site | 2562 | 19.57 |
| Access Road/Hwy 41 Improvement Area | 120 | 1.74 |
| Control Area A | 2206 | 7.85 |
| Control Area B | 5761 | 20.00 |
| Total | 10,649 | 49.16 |

While performing the surveys, the dog ranged and quartered ahead of the handler, searching for target scents. The survey tracks of both the handler and the dog were recorded using GPS units, to document the area covered (Figure 3). The handler carried one GPS unit, and another was inserted into the dog’s working harness. Transect lines were generally followed; however, transect spacing in certain areas was altered to survey areas where kit fox often defecate, such as on and around fence posts; along unpaved roads, game trails, and other linear features; and on top of animal carcasses, cement objects, and trash.

When a target scent was detected, the dog would follow the scent to the source and offer a passive alert by sitting next to the target. Once the target was confirmed, the dog received a 30-second play session with the handler. After the play session, the handler and scent dog continued searching for target scents along the transect line while the field assistant documented the find and collected the sample.

As the team progressed through transects, each time the dog alerted to scat, the handler would place an orange cone over the sample located by the dog. Before continuing along the transect, the handler would contact the field assistant to provide a description of the find and its location. Approximately every 45 to 60 minutes, the handler would rest the dog under the shade of an umbrella, provide water to the dog, and allow time to regroup with the field assistant.

The location of each potential San Joaquin kit fox scat collected was georeferenced using GPS and assigned an identifying number. In addition to recording scat information, the team opportunistically recorded the GPS locations of mammalian excavations potentially used or excavated by American badgers, kit foxes, red foxes, or coyotes. Information regarding kit fox scat and potential dens was shared with HTH spotlight surveyors to the increase the probability of observing San Joaquin kit fox in these locations during future spotlight surveys.



J:\Reports\Wildlife Reports\2013 Wildlife Surveys\Scat Dog Surveys Report Dec 2013\Fig 3 Scat Locations and Scent Dog GPS Tracks.mxd

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

2.2.1 Scat Sample Collection

San Joaquin kit fox scat can persist in the field for several months, with persistence time varying according to weather conditions and the composition of the scat. Collection of fresh scat that retains some moisture, as well as odor detectable by the human nose, is optimal for DNA analysis (Wasser et al. 2004; Vynne et al. 2011). Successful DNA amplification from degraded scat (e.g., scat with no odor detectable by the human nose) is more challenging (Wasser et al. 2004). However, scent dogs can accurately detect the scat of target species even when degradation precludes successful DNA amplification using current techniques. Many studies try to optimize collection of fresh scat in the field (e.g., Maldonado 2010); however, when a study is evaluating the presence/absence of a species where individuals occur in low numbers, even degraded samples detected by the scent dog must be collected to maximize the possibility of verifying that the species does or does not occur in the area. For this reason, all samples that the scent dog detected were collected, and DNA analysis was attempted even though most of the scat samples were highly degraded (dried completely throughout, with little or no odor to the human nose; also, most were exposed to full sunlight, resulting in maximal exposure to ultraviolet [UV] light, known to degrade DNA).

For each scat sample, data were recorded, the position georeferenced, and the sample photographed. The entire scat was then transferred into a sterile 50-milliliter conical centrifuge tube; all sealed tubes containing samples were stored separately in sealed plastic bags to prevent cross contamination. Within a week after collection, scat samples were transported to the Environmental Biotechnology Institute at California Polytechnic State University, San Luis Obispo, for genetic analysis by HTH genetics experts.

2.2.2 Data Collection

Multiple data points were gathered for each scat sample collected in the field. Data were recorded on an iPad™ using the computer program GIS Pro. The collected data for each scat sample included the following:

- Dog behavioral reaction—The handler noted the dog’s behavior relative to any observed and collected potential canid scat (within the size range of kit fox scat). The dog’s behavioral reaction was categorized as one of the following: 1) *alert*—dog investigated and alerted to the scat (sat next to the sample); 2) *pass*—dog investigated and sniffed the scat, then moved on; or 3) *no-behavior*—dog never investigated the scat at close range. The last type of behavior occurred when the dog either smelled the scat at a distance and recognized that it was not a target scent (and therefore never followed the scent to its source) or was never in position downwind of the scat to smell it. In the no-behavior cases, the field assistant found the sample. These are referred to in the remainder of the document as “*opportunistic*” samples.
- General location—A description of the location where the scat was found (e.g., along a road, adjacent to a water trough, or next to larger canid scat or rabbit pellets).
- Universal Transverse Mercator (UTM) location

- Time of collection
- Elevation
- Handler confidence—The handler was responsible for reading and interpreting the dog’s body language and confirming an “alert” with a play reward. Therefore, the handler’s confidence that the dog had alerted to a target sample or passed a non-target sample was recorded, based on the handler’s interpretation of the dog’s body language as well as the appearance of the scat sample.
- Condition of the scat—The condition of the scat was noted. Most potential kit fox scats were highly degraded, desiccated, and white/grey in color, suggesting that the scats were likely old, weathered, and/or exposed to high levels of UV light.
- Scat contents—Visible contents within the scat, such as hair, bones, and insects, were noted.
- Vegetation—The type, percent coverage, and height of vegetation were noted.
- Photograph—A photograph was taken of each sample collected.

In addition to collecting the data listed above, the field assistant recorded wind speed, temperature, and humidity approximately every 30 minutes throughout each survey. This information was used to observe the dog’s reaction to environmental factors throughout the day. This dataset also allowed HTH ecologists to analyze how environmental factors influenced the dog’s stamina and ability to work in a variety of environmental conditions.

Weather conditions experienced by the team on survey days varied throughout the survey period (12 September through 23 October). In September, temperatures reached the mid- to high 90s; therefore, the team began surveying at sunrise and surveyed until the temperature reached the low to mid-80s. In October, daily high temperatures cooled measurably (approximately 5–10°F), allowing surveys to begin and end later in the day. Wind conditions were very consistent throughout the survey period (excluding two non-precipitation storm events), with wind speeds generally around 1.1 mph in the morning, picking up to around 3.5 mph by midafternoon. Winds on 20 and 21 September were the exception, with speeds reaching 11.5 and 10.4 mph, respectively, by 1:00 PM.

2.3 DNA Testing

Genetic analysis of scat has become an important tool in the field of wildlife biology. The noninvasive sampling of scat allows biologists to monitor wildlife populations without physically interacting with target species, thus reducing time in the field and limiting effects on the species. Scat DNA analysis is now widely used in wildlife studies to identify the species of origin. Using DNA extracted from scat, wildlife biologists can accurately estimate local population size, the number of individuals using a specific area, and the sex distribution of these individuals.

DNA studies conducted as part of San Joaquin kit fox surveys of other energy project sites in California have used mtDNA fragment analysis to confirm species identity (Maldonado 2010; Smith 2011). In this study, HTH went a step further and used mtDNA sequence data, rather than fragment analysis, to confirm species

identity; this involved using multiple (200+) comparative points of data rather than the single point of data used in fragment analysis, thereby providing more robust species identification information. In comparison, fragment analysis data results can vary when analyzed by different individual pieces of equipment, making the data difficult to combine with other data sets or to share with other researchers.

2.3.1 Genetic Analysis Procedure

During genetic analysis performed in the laboratory, a small piece of the outside layer of each scat sample collected was removed using sterile tweezers and transferred for DNA extraction using a standard laboratory extraction protocol. Fecal material was taken from the outside of the scat to maximize the probability of extracting host DNA from intestinal epithelial cells and to minimize prey DNA (similar to Rutledge et al. 2009). Each batch of extractions included a negative control sample (non-kit fox DNA) to control for contamination. Following DNA extraction, the depositing species was identified by amplifying and sequencing mtDNA extracted from the scat. A 250-base-pair fragment of the mitochondrial control region of the mtDNA was amplified using polymerase chain reaction (PCR; a common biochemical technology that amplifies the DNA fragment, generating thousands to millions of identical DNA fragments), employing the primers KFSPID-F and KFSPID-R (Bozarth et al. 2010). Each amplification was tested for success using agarose gel electrophoresis, and each PCR run included a negative control to test for potential contamination and spurious amplification. Each successful amplification was sent to Sequetech Corporation (Mountain View, California) for PCR cleanup and Sanger sequencing in both directions, using the PCR primers.

Following sequencing, HTH scientists downloaded the sequence trace files into Genious R7 (Biomatters) and edited and aligned these files. Each successful sequence trace was aligned with its reverse complement sequence and linked together to produce a single consensus sequence. The consensus sequences were compared to known reference consensus sequences for kit fox, domestic dog, coyote, grey fox, red fox, American badger, and skunk (*Mephitis mephitis*), downloaded from GenBank, to identify the species of the depositing individual.

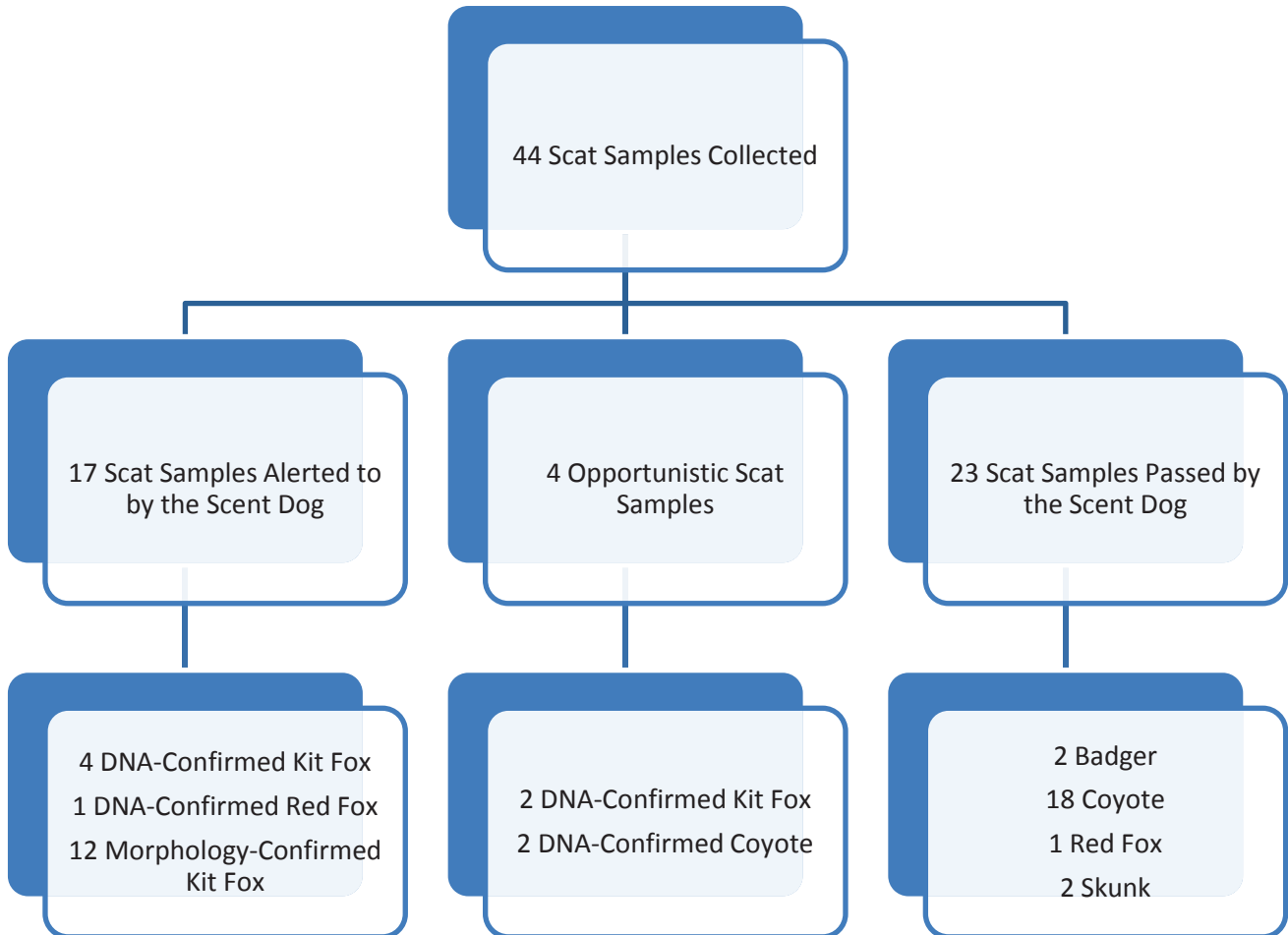
Section 3.0 Results and Discussion

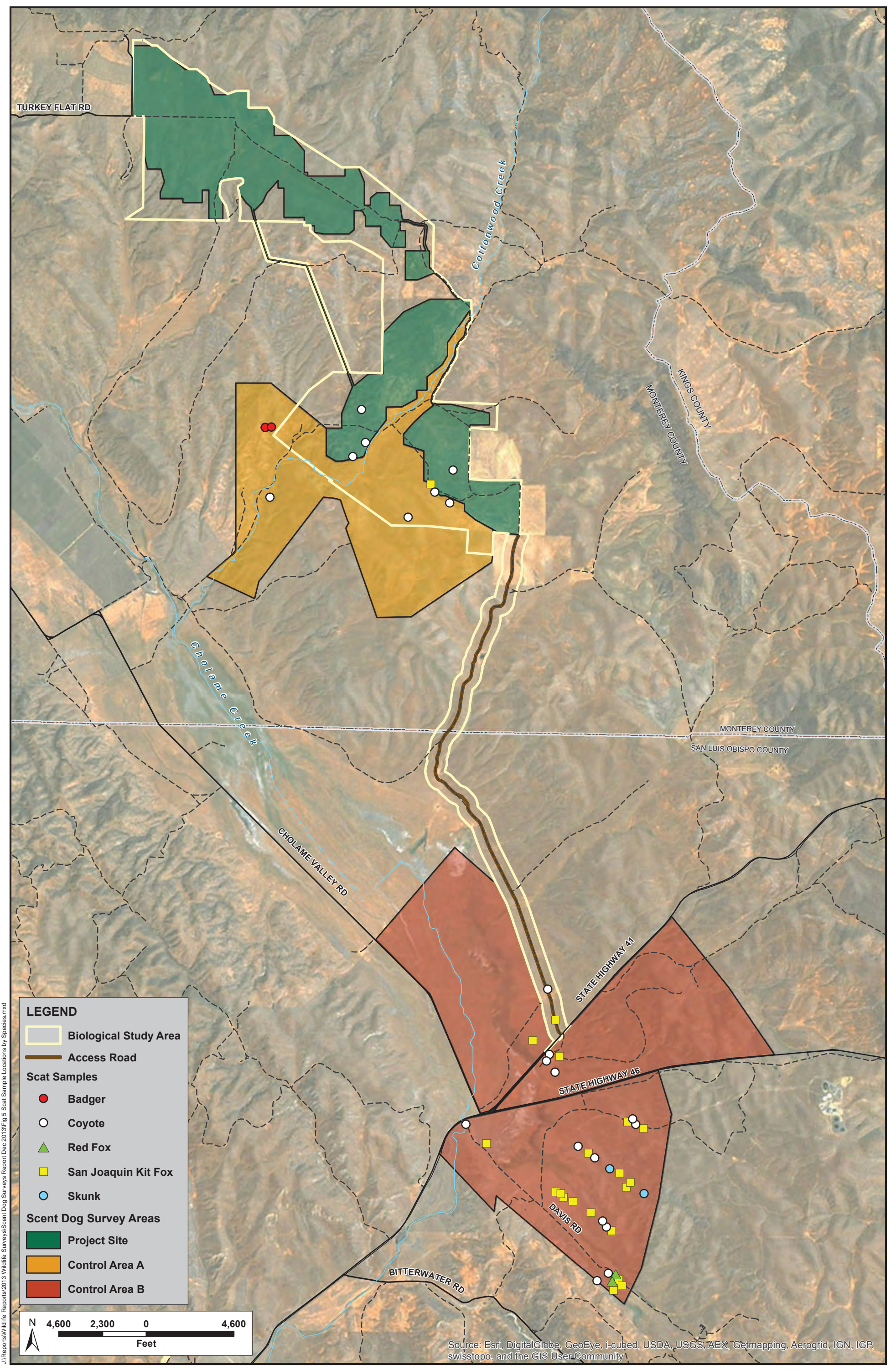
3.1 Overview

The primary goal of the scent dog surveys was to determine the occurrence of San Joaquin kit fox on the Project site and to compare that finding with kit fox occurrence on the surrounding lands, specifically in the two Control Areas. The locations of identified target scat are congruous with what HTH anticipated based upon the results of prior survey efforts: San Joaquin kit fox occur infrequently and with low abundance on the Project site and within Control Area A compared to the southern portion of the existing access road and adjacent Control Area B.

HTH scientists analyzed all target scats, both those alerted to by the dog and those observed opportunistically by the dog handler and assistant, using both the DNA testing methods described above and scat morphology. This integrative approach helped confirm that the scent dog alerted appropriately, and did not pass, target scents. Furthermore, the collection and analysis of non-target scats in addition to target scats provided baseline information regarding mammalian predators found within the Project site and Control Areas. In total, 44 samples were collected by the scent dog team and analyzed (Figure 4): of the 44 samples, 17 scat samples were alerted to by the scent dog, 4 scat samples were opportunistically collected by the scent dog team, and 23 canid-like scat samples were collected after they were inspected and passed by the scent dog. Figure 3 depicts the locations of scats along the transect lines, indicates how each sample was identified (alerted to, passed, or opportunistically collected). Figure 5 identifies the depositing species of each scat sample.

Figure 4. Summary of Scat Samples Collected by the Scent Dog Team





J:\Reports\Wildlife Reports\2013 Wildlife Surveys\Scat Dog Surveys\Report Dec 2013\Fig 5 Scat Sample Locations by Species.mxd

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

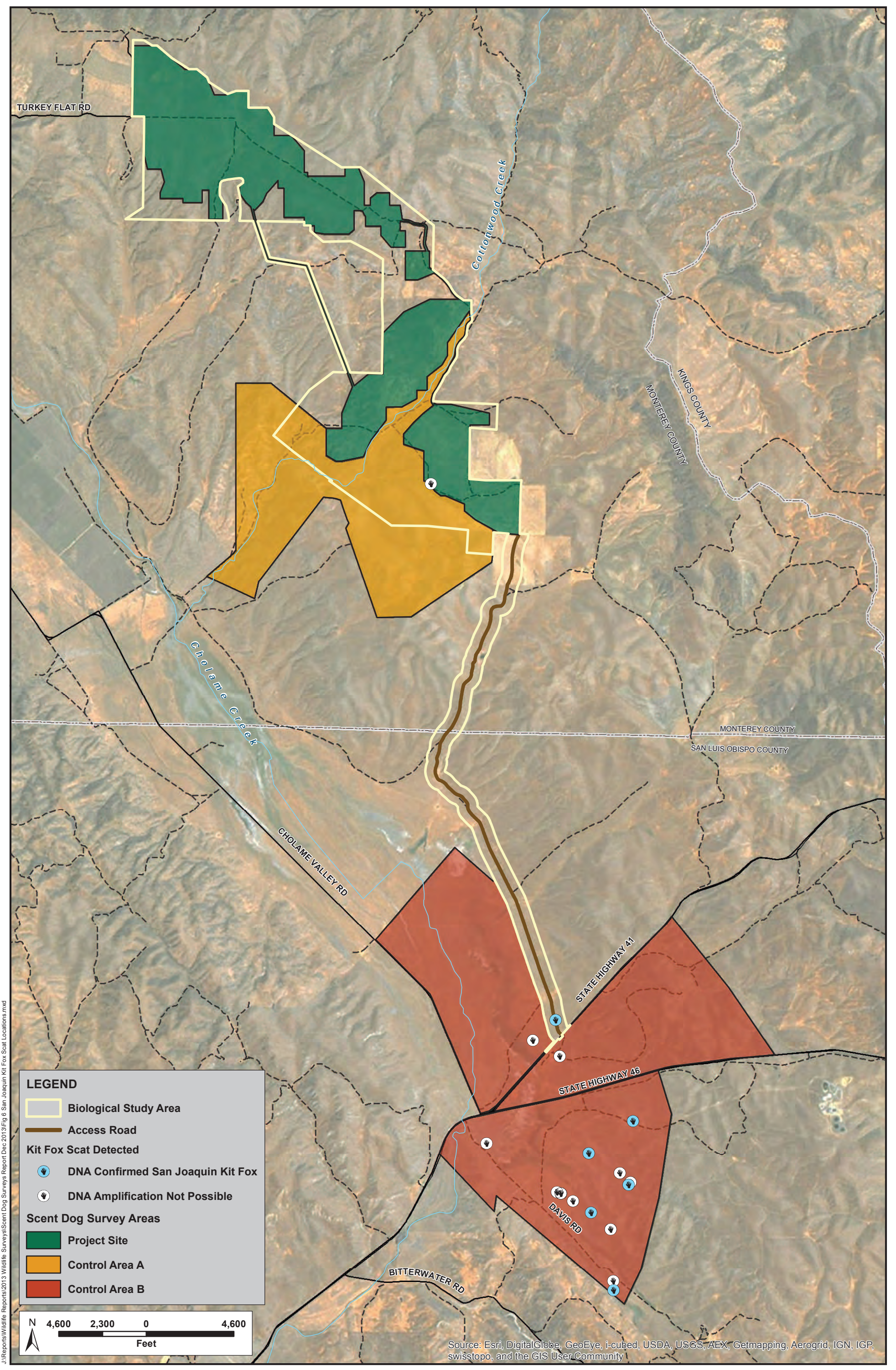
3.2 Analysis of Scent Dog-Identified Samples

3.2.1 DNA Analysis

The dog alerted the handler to 17 scat samples (Figure 6). One sample was detected on the proposed Project site (Sample 20130926-SH-01), one along the southern portion of the existing access road north of Hwy 41 (Sample 20131014-SH-01), and another immediately west of the access road (Sample 20131014-SH-02) within Control Area B. The other 14 scat samples were detected south of Hwy 41 in Control Area B. The dog did not alert to any scat in Control Area A.

Of the 17 samples, 16 were analyzed for mtDNA species confirmation. The 17th scat sample (collected in Control Area B; Sample 20131014-SH-02) was highly degraded: the fecal material had decayed around the prey contents, leaving only remnants of hair and bones visible. No visible fecal matter was available for collection and analysis.

All but one of the samples analyzed for DNA were highly degraded, based on appearance. They were desiccated, appeared grey in color, and contained little to no odor to the human nose, suggesting that the samples were old and/or exposed to high levels of UV light, known to degrade DNA. The single, fresher sample was brown in color and still carried an odor detectable to the human nose (see Appendices B through D). Five of the samples successfully amplified and returned clean sequence DNA (Table 2). Four of these samples returned San Joaquin kit fox sequence (Table 2), and one returned red fox sequence, indicating an 80% accuracy rate achieved by the scent dog, based on just the DNA-confirmed samples. The remaining 11 desiccated samples (including the one detected on the Project site) failed to amplify host mtDNA after two extraction attempts and 28 amplification attempts, and were considered “failed DNA amplifications of host DNA.” Based on the 80% accuracy rate of DNA-confirmed samples, up to 9 of the failed DNA amplification samples would be San Joaquin kit fox scat. However, HTH ecologists believe that all 11 of these samples and the sample not submitted for testing are likely to have been deposited by San Joaquin kit fox; this assertion is discussed further in the following section.



J:\Reports\Wildlife Reports\2013\Wildlife Surveys\Scat Dog Surveys Report Dec 2013\Fig 6 San Joaquin Kit Fox Scat Locations.mxd

Table 2. DNA-Confirmed Scat Samples Alerted to by the Scent Dog

| Sample ID | Location | Condition of Scat | Scat Contents | Species |
|----------------|----------------------|---------------------------|---------------|---------------------|
| 20130912-SH-05 | Control Area B | Desiccated and grey | None visible | San Joaquin kit fox |
| 20130917-SH-01 | Control Area B | Desiccated and grey | Bones | San Joaquin kit fox |
| 20130917-SH-02 | Control Area B | Desiccated and grey | None visible | San Joaquin kit fox |
| 20131014-SH-01 | Existing Access Road | Desiccated and brown/grey | Hair | San Joaquin kit fox |
| 20130912-SH-01 | Control Area B | Desiccated and grey | None visible | Red fox |

3.2.2 Non-DNA-Confirmed Kit Fox Scat Samples

Based on the kit fox expertise of HTH ecologists, and considering the location, morphology, and contents of the scat samples, HTH considers that all of the 11 failed amplification samples and the single sample not submitted for DNA testing were deposited by San Joaquin kit fox (Figure 6). The reasons for this assertion are discussed below.

- Location—the general locations where 11 of the 12 non-DNA-confirmed kit fox scats were collected support San Joaquin kit fox preferred habitat, and not the mesic habitat (such as riparian areas) preferred by red fox. The two red fox samples that were collected (one detected by the dog and one passed by the dog) were both found near a riparian area in the southeast corner of Control Area B. Only one of the 12 non-DNA-confirmed kit fox scats was collected in this area. The other 11 scat samples were found in flat land or rolling hills with slopes less than 30%, containing California annual grassland habitat suitable for San Joaquin kit fox. Also, these 11 scat samples were found in areas that had few rock outcroppings or none, with limited tall shrubs or trees; these conditions are more typical of kit fox habitat than of red fox habitat. Finally, 10 of the 12 non-DNA-confirmed kit fox scats were found in close proximity to DNA-confirmed kit fox scats.
- Morphology and contents—Not all scat samples of a particular species are morphologically identical; however, 11 of the 12 non-DNA-confirmed kit fox scat samples appeared morphologically similar to known San Joaquin kit fox scat, which has an irregular shape, rounded on one side and pointed on the other, and generally contains hair and small bones broken by mastication (see Appendix B, “Scat Samples Alerted to by the Scent Dog”). The 12th scat sample, which did not contain enough fecal material for DNA testing, was not morphologically similar because it lacked fecal material.

In addition to these factors, the scent dog's success in alerting to or passing scat based on species identity supports the determination that the 12 scats in question are highly likely to be those of kit fox. The single red fox sample to which the dog alerted was the first scat she detected, doing so within minutes after the first survey was initiated on 12 September. Potential non-target scats collected by the team, that the dog passed, were used as a control to confirm that the dog correctly passed scat from non-target species. Of the 23 passed scat samples, the condition of 21 scat samples was sufficient for DNA analysis, confirming that all 21 samples were non-kit fox scats. One of these was confirmed to be red fox, and was collected later on the same day that the dog alerted to the initial red fox sample.

Dogs trained onto kit fox occasionally alert to red fox (Smith 2011), a species of the same genus that is genetically very similar. Dogs may generalize and key in on some element(s) of red fox scat scent molecules that are similar to kit fox scat scent molecules (Smith 2011). This may have been true in the case of Luna's error, especially because the sample in question was desiccated. As previously noted, the dog passed a fresher red fox sample later the same day, indicating that the dog can correctly differentiate between kit fox and red fox. More importantly, the dog did not pass any known kit fox scat: of all the passed scats confirmed to species by DNA, none were that of kit fox. A foundation of HTH's dog training program is the ongoing training of the scent dog using known non-target scats (red fox, grey fox, and coyote scat) and target scent (kit fox scat) when the dogs are not working in the field, to reinforce the dog's target repertoire and minimize alerts to non-target scents.

3.2.3 Passed Samples

In addition to the factors discussed above, the scent dog's success in passing scat based on species identity supports the determination that the 12 scat samples in question are highly likely to have been deposited by kit fox. As discussed previously, 23 potential non-target scats that the dog passed¹ (Figure 3) were collected by the team. Some of these samples were of a size, composition, and morphology similar to that of San Joaquin kit fox scat. Most of the passed scat samples were fresh in appearance, and DNA analysis confirmed that 21 of these samples were non-kit fox scats, including one skunk, two American badger, and 17 coyote scats (Table 3).

The two samples that failed DNA analysis likely did so because the scats were primarily composed of insect exoskeletons and contained very little fecal material. Upon inspection of these two scats, HTH mammalogists and San Joaquin kit fox experts concluded that scat Sample 20130916-OS-01 is coyote and that Sample 20130917-OS-02 is skunk, based on scat morphology, contents, and the scats' visual resemblance to DNA-confirmed scats of those species.

¹ The scent dog investigated these samples and moved on without alerting the handler to the scat, so these samples were categorized as passed.

In summary, DNA and expert analysis of the passed samples confirmed that the scent dog did not pass any San Joaquin kit fox scats, so the overall pass accuracy rate of non-target scents was 100%. This is especially important to note because the red fox scat that the dog alerted to was her only confirmed error. Taking into consideration all 40 scat samples that the scent dog inspected (17 alerted to and 23 passed, with only one error), the dog’s overall accuracy rate for the survey is 97.5%.

Table 3. Scat Samples Passed but Collected and Analyzed for Species Identity

| Species | Number of Scat Samples Collected | |
|-----------------|----------------------------------|------------------|
| | Project Site | Control Areas |
| American badger | 0 | 2 |
| Coyote | 4 | 14 |
| Red fox | 0 | 1 |
| Skunk | 0 | 2 |
| | | Total: 23 |

3.3 Analysis of Opportunistic Scat Samples

Four scat samples categorized as *opportunistic* were detected by the dog handler or assistant and collected in Control Area B (Figure 3). These samples appeared to the observers to be potential kit fox scats based on their morphology. The dog never investigated these scats or was never in a position to smell the scat (i.e., was never downwind of the scat).

All four opportunistic samples were DNA-analyzed to identify the depositing species. Two of these samples (Sample 20130916-OS-02 and 20130917-OS-04) returned San Joaquin kit fox sequence data (Table 4). When the dog’s GPS survey track was compared to both sample locations and cross referenced with wind direction data collected in the field, it was apparent that the dog passed Sample 20130917-OS-04 on the upwind side; therefore, she never smelled this sample. The dog passed Sample 20130916-OS-02 on the downwind side, but no change of behavior by the dog was observed. This may have been because the scat was inside a California ground squirrel (*Otospermophilus beecheyi*) burrow, and the scat’s scent did not travel far enough for the dog to pick up (i.e., the scent pooled in the burrow). The other two samples were genetically identified as coyote scats (Samples 20130916-OS-03 and 20130916-OS-05; Table 4). When the dog’s GPS survey track was compared to these samples, the track showed changes in the dog’s direction while she was traveling downwind of the sample, suggesting that she quickly smelled these samples, recognized them as non-targets, and moved on without demonstrating a strong change in behavior recognizable to the handler.

Table 4. Opportunistic Scat Samples

| Sample ID | Location Found | Condition of Scat | Species |
|----------------|----------------|---------------------|---------------------|
| 20130916-OS-02 | Control Area B | Desiccated and grey | San Joaquin kit fox |
| 20130917-OS-04 | Control Area B | Desiccated and grey | San Joaquin kit fox |
| 20130916-OS-03 | Control Area B | Desiccated and grey | Coyote |
| 20130916-OS-05 | Control Area B | Desiccated and grey | Coyote |

3.4 San Joaquin Kit Fox Genetic Lineages

The mtDNA sequence data analyzed show that six DNA-confirmed kit fox scats were deposited in Control Area B or on the existing access road. Based on available tissue, a subset of three of these scats were capable of additional analysis using five nuclear microsatellite markers. The nuclear microsatellite analysis strongly supported these three samples being derived from three kit fox individuals (Table 5). Of these three individuals, two individuals were detected south of Hwy 46 and one individual was located along the existing access road (Table 5).

The five kit fox samples detected south of Hwy 46 (Table 5) (Figure 6) are all derived from the same mtDNA Lineage 1, potentially indicating a sibling group in the area. However, the nuclear microsatellite analysis strongly suggests that at least two distinct kit fox individuals (Nuclear DNA lineages) were detected south of Hwy 46 within this potential sibling group (Table 5). The sample found on the existing access road (Nuclear DNA Lineage 3; Table 5) (Figure 6) has a sequence that differs by two base pairs. This scat sample appeared fresher (it still had some brown coloration), so it is likely that this individual was present more recently; in fact, the scat may have been deposited by the individual observed by HTH biologists in the same location during the September–October 2013 spotlight surveys (Figure 2).

Table 5. Genetic Lineages of San Joaquin Kit Fox Scat

| Sample ID | Location | Species | mtDNA Lineage | Nuclear DNA Lineage |
|----------------|----------------------|---------------------|---------------|---------------------|
| 20130912-SH-05 | South of Hwy 46 | San Joaquin kit fox | 1 | 1 |
| 20130917-SH-01 | South of Hwy 46 | San Joaquin kit fox | 1 | 1 |
| 20130917-SH-02 | South of Hwy 46 | San Joaquin kit fox | 1 | 2 |
| 20130916-OS-02 | South of Hwy 46 | San Joaquin kit fox | 1 | 1 |
| 20130917-OS-04 | South of Hwy 46 | San Joaquin kit fox | 1 | 1 |
| 20131014-SH-01 | Existing Access Road | San Joaquin kit fox | 2 | 3 |

3.5 Discussion

The results of the spotlight and scent dog surveys collectively confirm that San Joaquin kit fox occurrence within the Project site and Control Area A is low, whereas occurrence is moderate within Control Area B and the southern portion of the existing access road (Figure 7). During the spotlight survey, HTH ecologists observed San Joaquin kit fox twice along the existing access road, one individual south of Hwy 41 in Control Area B, one individual approximately 2.6 miles southeast of Control Area B, and no individuals on the Project site or in Control Area A. During the scent dog surveys, one San Joaquin kit fox scat sample was detected on the existing access road (Figure 9). Sixteen scat samples were detected in Control Area B, with the majority of those (15) detected south of Hwy 41 (Figure 7). Only one kit fox scat was detected in the southern portion of the Project site, and none was found within Control Area A (Figure 7). On the Project site, the canine species most frequently detected during the scent dog surveys was the coyote (Table 7).

Table 6. Locations of San Joaquin Kit Fox Detections (Individuals and Scats)

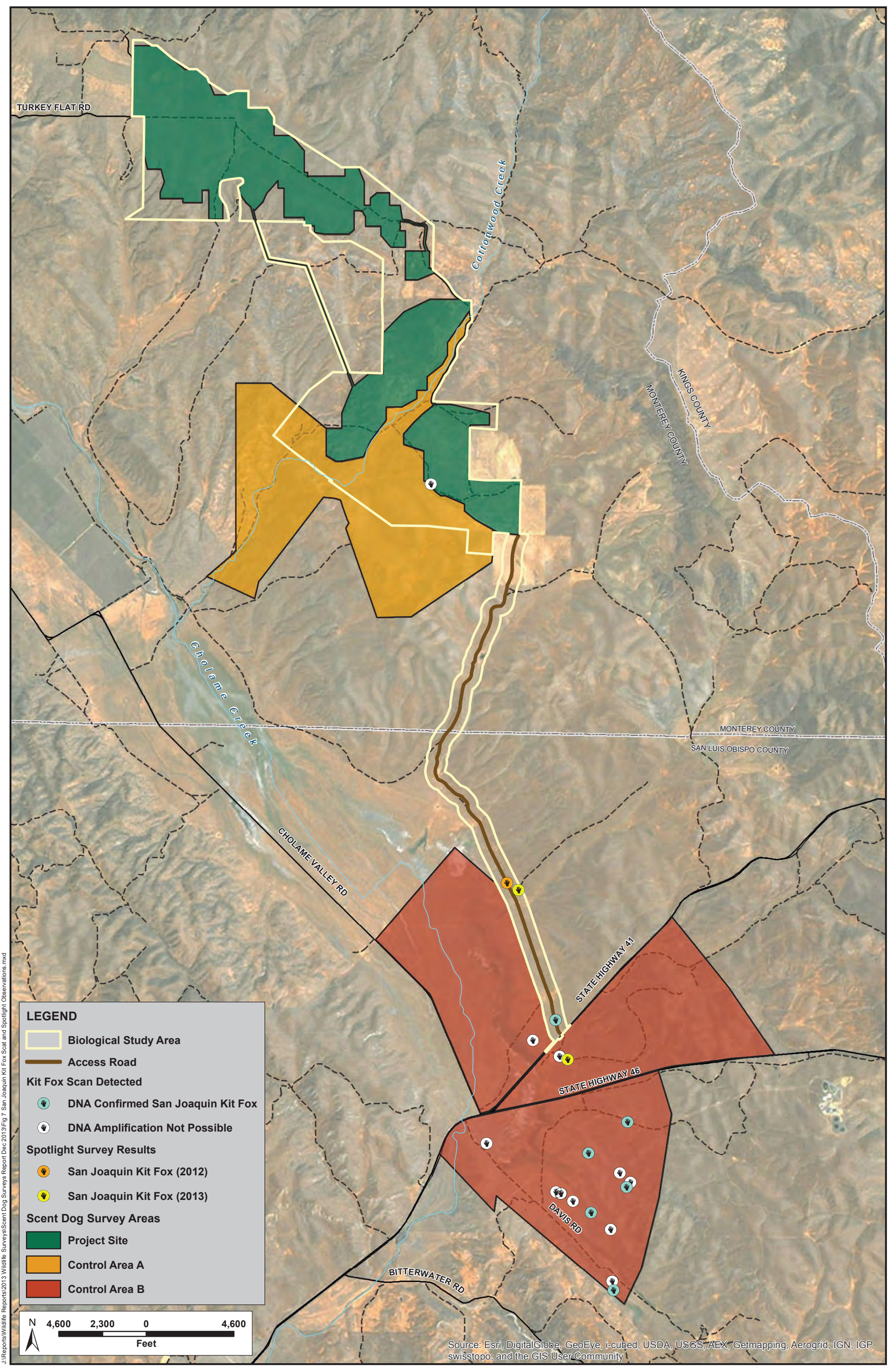
| Detection Location | Number of San Joaquin Kit Fox Detections | | |
|----------------------------------|--|-------------------|-------|
| | Spotlight Survey | Scent Dog Survey | Total |
| | Project site | 0 | 1 |
| Control Area A | 0 | 0 | 0 |
| Existing Access Road | 2 | 1 | 4 |
| North of Hwy 41 – Control Area B | 0 | 1 | 1 |
| South of Hwy 41 – Control Area B | 1 | 15 | 16 |
| Southeast of Control Area B | 1 | Area not surveyed | 1 |

Table 7. Summary of All 44 Scat Samples Detected

| Species | Number of Scat Samples | | | |
|---------------------|------------------------|----------------------|----------------|----------------|
| | Project Site | Existing Access Road | Control Area A | Control Area B |
| San Joaquin kit fox | 1 | 1 | 0 | 16 |
| American badger | 0 | 0 | 2 | 0 |
| Coyote | 4 | 0 | 4 | 12 |
| Red fox | 0 | 0 | 0 | 2 |
| Skunk | 0 | 0 | 1 | 1 |
| Total: 44 | | | | |

In Control Area B, linear features such as infrequently traveled/unpaved roads and game trails, as well as objects like water troughs, correlated with San Joaquin kit fox scat locations, a well-documented pattern for

kit fox and other carnivores (MacDonald 1980; Kohn et al. 1999; Koopman et al. 2001; Smith et al. 2005; Smith 2011). The single potential San Joaquin kit fox scat detected on the Project site was located near two of these features: approximately 180 feet east of the interior access road and 90 feet north of a cattle water trough.



J:\Reports\Wildlife Reports\2013 Wildlife Surveys\Scat Dog Surveys Report Dec 2013\Fig 7 San Joaquin Kit Fox Scat and Spotlight Observations.mxd

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Based on our analysis, three individual kit fox were confirmed in the survey area. All confirmed mtDNA genetic lineages were from the existing access road and Control Area B, with two individuals active in the area south of Hwy 46, and one individual north of Hwy 41. It is not known whether the scat sample found on the Project site was deposited by a fox from one of these lineages; the Project site sample (confirmed to be kit fox based on HTH professional expertise) was too desiccated to yield mtDNA data. The kit fox that deposited the scat on the Project site is not likely the same individual that deposited scat along the access road because a distance of approximately five miles separates the two scats. Consequently, the scat found within the Project site is more likely to be a separate individual of the same genetic lineage (e.g., a maternal sibling), or another individual that is active in the study area.

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Appendix A. Scent Dog Team Resumes



Katherine L. Ayres, Ph.D.

Wildlife Ecologist

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AREAS OF EXPERTISE

- Mammal Ecology and Behavior
- Conservation Physiology
- Non-invasive Sampling Methodology
- Detection Dog Training/Handling
- Construction monitoring

EDUCATION

- Ph.D. Biology, University of Washington, 2011.
- B.A. Biology, Pomona College, 2004.

PRIOR PROFESSIONAL EXPERIENCE

- Animal Behavior Consultant, Companion Animal Solutions LLC, 2010-present.
- Client Care Manager, Companion Animal Solutions LLC, 2010-present.
- Conservation Canine Handler, Conservation Canines, University of Washington, 2005-2006 and 2009.

PROJECTS

- California Valley Solar Ranch Construction Monitoring
- California Flats Scent Detection Dog Surveys

KEY PUBLICATIONS

Ayres KL, Booth RK, Hempelmann JA, Koski K, Emmons CK, et al. (2012) Distinguishing the Impacts of Inadequate Prey and Vessel Traffic on an Endangered Killer Whale (*Orcinus orca*) Population. PLoS ONE 7(6): e36842. Doi:10.1371/journal.pone.0036842.

Complete list of publications available upon request

PROFESSIONAL PROFILE

Katherine is the lead dog trainer and handler for our scent detection dog program. Katherine has field, academic and applied experience in mammal ecology, behavior and physiology as well as extensive experience with applied animal behavior and scent detection dog training/handling.

Prior to her work at H.T. Harvey & Associates, Katherine completed her Ph.D. in Biology at the University of Washington's Center for Conservation Biology. Katherine used non-invasive physiological measures of hormones from killer whale scat to test anthropogenic and ecological pressures on the health of the endangered Southern resident killer whale population: a population of killer whales that is extremely important to the economy, ecology and culture of the Pacific Northwest and British Columbia. She also worked with Conservation Canines to apply the use of boat based scat detection dogs to killer whale fecal sampling to minimize any potential stress from sampling on the study animals and to decrease the bias of visual sampling by humans.

Katherine also received training as an Animal Behavior Consultant and Dog Handler with Companion Animal Solutions LLC in Seattle, WA. She specializes in Learning Theory and hands on behavior modification practices for companion and working animals that are both ethical and effective. These skills combined with her Conservation Biology background, allow her to be a highly trained consultant for both pet behavior issues and application of working domestic dogs to ecology and wildlife conservation projects.

Since joining H. T. Harvey & Associates, Katherine has been a Wildlife Ecologist and Biological Monitor on the California Valley Solar Ranch. She monitored construction activities for compliance with the project's NEPA and CEQA documents, as well as the various environmental permits, including the California Endangered Species Act Incidental Take Permit, the Federal Environmental Endangered Species Act biological opinion, Clean Water Act Section 401 permits, and the California Department of Fish and Game Streambed Alteration Agreement. Katherine also organized, coordinated and maintained data for burrowing owl nesting deterrence activities within the construction areas and assisted with weekly compliance reports to the client.

Additionally, Katherine selected, trained, and handled H.T. Harvey & Associates first detection dog, Luna. Katherine trained Luna to detect and alert to scat of the endangered San Joaquin kit fox as well as avian fatalities.



M. Murrelet Halterman, Ph.D.

Wildlife Ecologist

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AREAS OF EXPERTISE

- Ecology of birds
- Bird survey protocols and protocol development

EDUCATION

- Ph.D., Ecology, Evolution, and Conservation Biology, University of Nevada, Reno, 2009
- M.S., Biology, California State University, Chico, 1991
- B.S., Wildlife Biology. University of California, Davis, 1985

PRIOR PROFESSIONAL EXPERIENCE

- Field Leader, Great Basin Bird Observatory, 2011-2012
- Golden Eagle Surveyor, BioResources, 2011-2012
- Project Director, Yellow-billed Cuckoo Research, Southern Sierra Research Station, 1999 to 2011
- Teaching Assistant, University of Nevada – Reno, 2002-2004
- Research Associate, Kern River Research Center. 1990-2000
- Instructor, Cerro Coso Community College, 1997-1999
- Field Assistant, Estacion Jatun Sacha, Ecuador, 1994
- Teaching Assistant, Department of Biological Sciences, California State University, Chico, 1987-1989
- Principal Investigator, California Department of Fish and Game, 1987

KEY PUBLICATIONS

- Halterman, M.D., Gilmer, D.S., Laymon, S.A., and Falxa, G. 2004. Yellow-billed Cuckoo Survey Methodology in California: 1999-2000. In Proceedings of the 2000 CA Riparian Ecosystems Conference in Sacramento, CA. Editor: M.L. Morrison.
- Halterman, M.D., D.S. Gilmer, S.A. Laymon, and G.A. Falxa. 2001. Status of the Yellow-billed Cuckoo in California: 1999-2000. Report to the USGS-BRD Dixon Field Station, Dixon, CA.

Complete list of publications available upon request

PROFESSIONAL PROFILE

Murrelet is a Wildlife Ecologist who joined H. T. Harvey & Associates after years of work studying birds throughout the western United States. She has worked extensively throughout the state of California for 30 years. She has studied Yellow-billed Cuckoos, Golden Eagles, and Southwest Willow Flycatchers.

Immediately prior to joining H. T. Harvey & Associates, Murrelet had worked with the Great Basin Bird Observatory. During this time she worked on Pinyon Jay research in southern Idaho, Yellow-billed Cuckoo surveys in Nevada, Elf Owl survey in southern California, and Golden Eagle nest survey on Bureau of Land Management properties throughout Nevada.

Murrelet also was the Project Director for Yellow-billed Cuckoo research for Southern Sierra Research Station for over ten years. Her responsibilities include grant writing, managing research projects, hiring and supervising field crews, making all logistical arrangements for projects, conducting field research, and preparing reports. This work also allowed her to act as the principal investigator for a status and distribution report on the Yellow-billed Cuckoo in California, 1999, and allowed her to conduct groundbreaking research on the species for her PhD.

Murrelet also has extensive teaching experience. She has taught Conservation Biology, Wildlife Ecology and Management, and general biology and zoology. Additionally, she has acted as a teaching assistant in general biology, botany, and ornithology classes.

During the last 25 years, Murrelet has designed and run point-count based bird surveys in CA, NV, and AZ. She has assisted with Spotted Owl surveys in the Sierra Nevada mountains, and Elf Owl research on the Lower Colorado River. She's traveled to the Amazon to volunteer on research on seasonal avian movement.

From 1999-2002 Murrelet interned with DogsHelp, a service dog organization in Chico California. She assisted with raising and training future service dogs using positive training methods. Following that experience, she furthered her understanding of canine behavior and training theory by reading and attending many seminars and workshops. She currently competes in dog agility, and has attended multiple national agility competitions.

Additionally, Murrelet was granted the honor of acting as a co-coordinator of the Yellow-billed Cuckoo symposium that was held at the 2003 Cooper Ornithological Society meeting.



Robyn M. Powers, M.S.

Wildlife Ecologist

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AREAS OF EXPERTISE

- Ecology of mammals
- Behavioral Ecology
- Conservation Biology
- Special-status species surveys

EDUCATION

- M.S. Biology, Behavior and Physiology, San Francisco State Univ., 2009
- B.S. Environmental Science, University of Denver, 2000

PRIOR PROFESSIONAL EXPERIENCE

- Biologist, North Wind Group, VAFB, CA 2010-2012
- Wildlife Biologist, Catalina Island Conservancy, Santa Catalina Island, CA 2006-2008
- Wildlife Biologist, Smithsonian Institution, San Nicolas Island, CA 2005-2006
- Wildlife Biologist, Institute for Wildlife Studies, Santa Catalina Island, CA 2004-2005
- Carnivore Technician, U.S. Forest Service, Lake Tahoe Basin, CA 2003-2004
- Research Assistant, Colorado Division of Wildlife, Montrose, CO 2003-2004
- Restoration Crew Leader, Bureau of Land Management, Las Vegas, NV 2002-2003
- Wildlife Research Assistant, University of Nevada Reno, Las Vegas, NV 2002
- Wildlife Crew Leader, U.S. Geological Survey BRD, Las Vegas, NV 2001-2002
- Wildlife Technician, U.S. Geological Survey BRD, Hawaii Volcanoes National Park, HI 2000-2001
- Research Assistant, Denver Botanic Gardens, Denver, CO 2000

PROFESSIONAL PROFILE

Robyn joined H.T. Harvey & Associates as a wildlife ecologist in our San Luis Obispo office. She has been responsible for monitoring the San Joaquin kit fox throughout the California Valley Solar Ranch Project site from May 2012 to present. This work requires the ability to identify dens of suitable size for occupation by kit foxes, recognize characteristics of natal dens, and also identify kit fox presence through sign, such as scat and typical features of actively-used dens. Robyn tracks the presence of kit foxes by monitoring potential and active dens with remote cameras, and mapping all known dens on the landscape. She also recognizes opportunities for atypical dens in stored construction materials, and suggests alternate storing configurations. In addition to identifying kit fox sign, Robyn recognizes sign of kit fox prey, such as giant kangaroo rat precincts, gopher mounds, and California ground squirrel burrows. She assisted in surveys on conservation lands, where sign of protected species and their prey were identified and mapped. As part of the relocation effort of giant kangaroo rats on the Project site, Robyn also assisted in excavating precincts.

Robyn is a member of H.T. Harvey & Associates' scent dog detection program. A strong interest in animal behavior led Robyn to focus her master's work on the behavioral ecology of canids, and the scent dog program has allowed her to deeply explore the field of behavior as it applies to training and working with domestic dogs. Since spring 2013, Robyn has worked closely with the in-house animal behavior expert and scent dog trainer on the principles of behavior theory and how they relate to dog training. Robyn participated in early and advanced scent recognition training of the current working dog, Luna, as well as four candidate dogs. She often boards scent dogs at her home, where she runs additional practice trials in scent dog handling. Robyn has gained additional experience by acting as a handler's assistant on assignments where Luna detected San Joaquin kit fox scat and avian carcasses.

Since 2000, Robyn has contributed to several research projects concerned with the conservation and management of wildlife populations and habitats. During this time, she gained valuable experience in research methods and field techniques, including rare and endangered wildlife and plant surveys, ground and aerial telemetry, mark-recapture techniques, wildlife rehabilitation, and track plate and remote camera surveys. Robyn's work experience has included a variety of species, ranging from reptiles to carnivores, and from invasive to endangered species. She participated in the recovery of the endangered Catalina island fox for several years, and her master's thesis dealt with the behavioral ecology of the endangered San Nicolas island fox. In the Mojave desert, she was a crew leader for a reproduction and density study on the desert tortoise. In addition to island foxes and desert tortoises, she has captured and handled mule deer, bald eagles, feral cats, feral pigs, and several species of small mammals and reptiles of the Mojave desert.

Robyn also has project experience in plant ecology. At the Denver Botanic Gardens in the Native Plants Research Department, she assisted in the production of a working herbarium for Rocky Mountain National Park and performed rare and endangered plant surveys. While working for the BLM, she led interns and groups from Nevada Conservation Core in desert restoration.

Appendix B. Scat Samples Alerted to by the Scent Dog

| Scat Photograph | Sample Number | Species | DNA Confirmation Status | Location Found | UTM |
|---|----------------|---------------------|-------------------------|----------------|---------------------------|
|  | 20130912-SH-05 | San Joaquin Kit Fox | DNA Confirmed | Control Area B | 10 S 747630 3955118 |
|  | 20130917-SH-01 | San Joaquin Kit Fox | DNA Confirmed | Control Area B | 10S 747831 3957839 |
|  | 20130917-SH-02 | San Joaquin Kit Fox | DNA Confirmed | Control Area B | 10S 747799 3956817 |
|  | 20131014-SH-01 | San Joaquin Kit Fox | DNA Confirmed | Control Area B | 10S 746524 3959408 |
|  | 20130912-SH-01 | Red Fox | DNA Confirmed | Control Area B | 10S 747568 3955329 |



20130912-SH-06

San Joaquin Kit Fox

DNA Amplification Not Possible

Control Area B

10S 747621 3955267



20130916-SH-01

San Joaquin Kit Fox

DNA Amplification Not Possible

Control Area B

10S 745502 3957386



20130916-SH-02

San Joaquin Kit Fox

DNA Amplification Not Possible

Control Area B

10S 746660 3956652



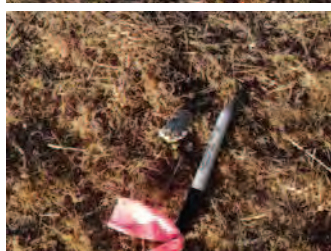
20130916-SH-03

San Joaquin Kit Fox

DNA Amplification Not Possible

Control Area B

10S 746724 3956632



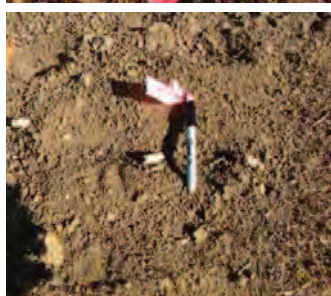
20130916-SH-04

San Joaquin Kit Fox

DNA Amplification Not Possible

Control Area B

10S 746724 3956631



20130916-SH-05

San Joaquin Kit Fox

DNA Amplification Not Possible

Control Area B

10S 746922 3956517



20130916-
SH-06

San Joaquin
Kit Fox

DNA
Amplification
Not Possible

Control
Area B

10S
747542
3956089



20130916-
SH-07

San Joaquin
Kit Fox

DNA
Amplification
Not Possible

Control
Area B

10S
747829
3956857



20130917-
SH-03

San Joaquin
Kit Fox

DNA
Amplification
Not Possible

Control
Area B

10S
747653
3957000



20130921-
SH-01

San Joaquin
Kit Fox

DNA
Amplification
Not Possible

Control
Area B

10S
746612
3958827



20130926-
SH-01

San Joaquin
Kit Fox

DNA
Amplification
Not Possible

Project site

10S
744176
3967904



20131014-
SH-02*





San Joaquin
Kit Fox

No visible fecal
material for
DNA analysis
(only prey bones
and hair




Control
Area B

10S
746174
3959064

Appendix C. Scat Samples Collected by the Scent Dog Team

| Scat Photograph | Sample Number | Species | DNA Confirmation Status | Location Found | UTM |
|---|----------------|---------------------|-------------------------|----------------|--------------------------|
|  | 20130916-OS-02 | San Joaquin Kit Fox | DNA Confirmed | Control Area B | 10S 747219 3956347 |
|  | 20130917-OS-04 | San Joaquin Kit Fox | DNA Confirmed | Control Area B | 10S 747139 3957296 |
|  | 20130916-OS-03 | Coyote | DNA Confirmed | Control Area B | 10S 747476 3956124 |
|  | 20130917-OS-05 | Coyote | DNA Confirmed | Control Area B | 10S 746971 3957396 |

Appendix D. Passed Scat Samples

| Scat Photograph | Sample Number | Species | DNA Confirmation Status | Location Found | UTM |
|---|--------------------|-----------------|-------------------------|----------------|--------------------------|
|  | 20131009 -OS-02 | American Badger | DNA Confirmed | Control Area A | 10S 741547 3968706 |
| (2 nd scat in above photo for 20131009-OS-02) | 20131009 -OS-03 | American Badger | DNA Confirmed | Control Area A | 10S 741547 3968706 |
|  | 20130912 -OS-02 | Coyote | DNA Confirmed | Control Area B | 10S 747571 3955330 |
|  | 20130912 -OS-03 | Coyote | DNA Confirmed | Control Area B | 10S 747363 3955259 |



20130917
-OS-01

Coyote

DNA
Confirmed

Control
Area B

10S
747848
3957836



20130917
-OS-03

Coyote

DNA
Confirmed

Control
Area B

10S
747243
3957223



20130920
-OS-01

Coyote

DNA
Confirmed

Control
Area B

10S
746450
3958849



20130921
-OS-01

Coyote

DNA
Confirmed

Control
Area B

10S
746408
3958742



20130921
-OS-02

Coyote

DNA
Confirmed

Control
Area B

10S
746552
3958569



20130926
-OS-01

Coyote

DNA
Confirmed

Project
site

10S
744246
3967776



20130926
-OS-02

Coyote

DNA
Confirmed

Project
site

10S
744524
3968140



20130930
-OS-01

Coyote

DNA
Confirmed

Project
site

10S
743103
3968523



20130930
-OS-02

Coyote

DNA
Confirmed

Project
site

10S
742911
3968291



20131002
-OS-01

Coyote

DNA
Confirmed

Project
site

10S
743020
3969049



20131008
-OS-01

Coyote

DNA
Confirmed

Control
Area A

10S
744492
3967612



20131008
-OS-02

Coyote

DNA
Confirmed

Control
Area A

10S
743835
3967357



20131009
-OS-01

Coyote

DNA
Confirmed

Control
Area A

10S
741611
3967585



20131014
-OS-01

Coyote

DNA
Confirmed

Control
Area B

10S
746381
3959892



20131016
-OS-01

Coyote

DNA
Confirmed

Control
Area B

10S
747473
3956134



20130912
-OS-07

Red Fox

DNA
Confirmed

Control
Area B

10S
747618
3955267



20130916
-OS-04

Skunk

DNA
Confirmed

Control
Area B

10S
748056
3956684



20130916
-OS-01

Coyote

DNA
Amplification
Not Possible

Control
Area B

10S
745160
3957676



20130917
-OS-02

Skunk

DNA
Amplification
Not Possible

Control
Area B

10S
747491
3957059

California Flats Solar Project 2014 Eagle Nest Survey Report



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1.0 INTRODUCTION

California Flats Solar, LLC (California Flats) proposes to construct and operate a 280-megawatt (MW) photovoltaic (PV) solar generating facility referred to as the California Flats Solar Project in southeastern Monterey County, California. When approved, the solar facility and related operations infrastructure (Project site) will be built on approximately 2,562 acres (1,037 hectares) of the 72,000-acre (29,137-hectare) Jack Ranch, which is a working cattle ranch.

Under the direction of California Flats, Western EcoSystems Technology, Inc. (WEST) prepared the following report summarizing the results of the 2014 aerial (helicopter based) eagle nest survey conducted for the proposed Project.

2.0 METHODS

WEST conducted the aerial eagle nest survey following survey recommendations provided by the U.S. Fish and Wildlife Service (USFWS; USFWS 2013, Pagel et al. 2010). The nest survey was conducted within the California Flats project boundary and a 10-mile (mi; 16.1 kilometer [km]) buffer (hereafter: survey area; Figure 1). An intensive search of suitable nesting substrates was conducted during the eagle nest survey and all nests considered potentially suitable for supporting eagles were documented. In addition to conducting a full eagle-nest search of the survey area, nest locations from the 2013 nest survey for the Project were visited (see H.T. Harvey 2013).

Basic nest use was categorized consistent with Steenhof and Newton (2007). Nests were classified as occupied if any of the following were observed at the nest structure: (1) an adult eagle in an incubating position, (2) eggs, (3) nestlings or fledglings, (4) occurrence of a pair of adult eagles (or, sometimes subadults), (5) a newly constructed or refurbished stick nest in the area where territorial behavior of an eagle had been observed early in the breeding season, or (6) a recently repaired nest with fresh sticks (clean breaks) or fresh boughs on top, and/or droppings and/or molted feathers on its rim or underneath. A nest that is not occupied is termed unoccupied. Occupied nests were further classified as active if an egg or eggs had been laid or nestlings were observed, or inactive if no eggs or chicks were present.

WEST conducted the 2014 aerial survey on three days in April (April 15, 16, and 17). Nests found to be potentially active in April were checked again on May 23 to further assess whether the nest failed or successful fledged young. WEST flew the aerial survey using two observers and one pilot in a Robinson R44 Raven I single-engine helicopter. During the surveys, observers scanned suitable habitats (including trees, rocks, cliffs, transmission line poles, etc.) for new nests. When a nest structure was observed, the helicopter was moved to a position where nest status and species, if active, could be determined. A tablet computer with Global Positioning System (GPS) software was used to record nest locations and

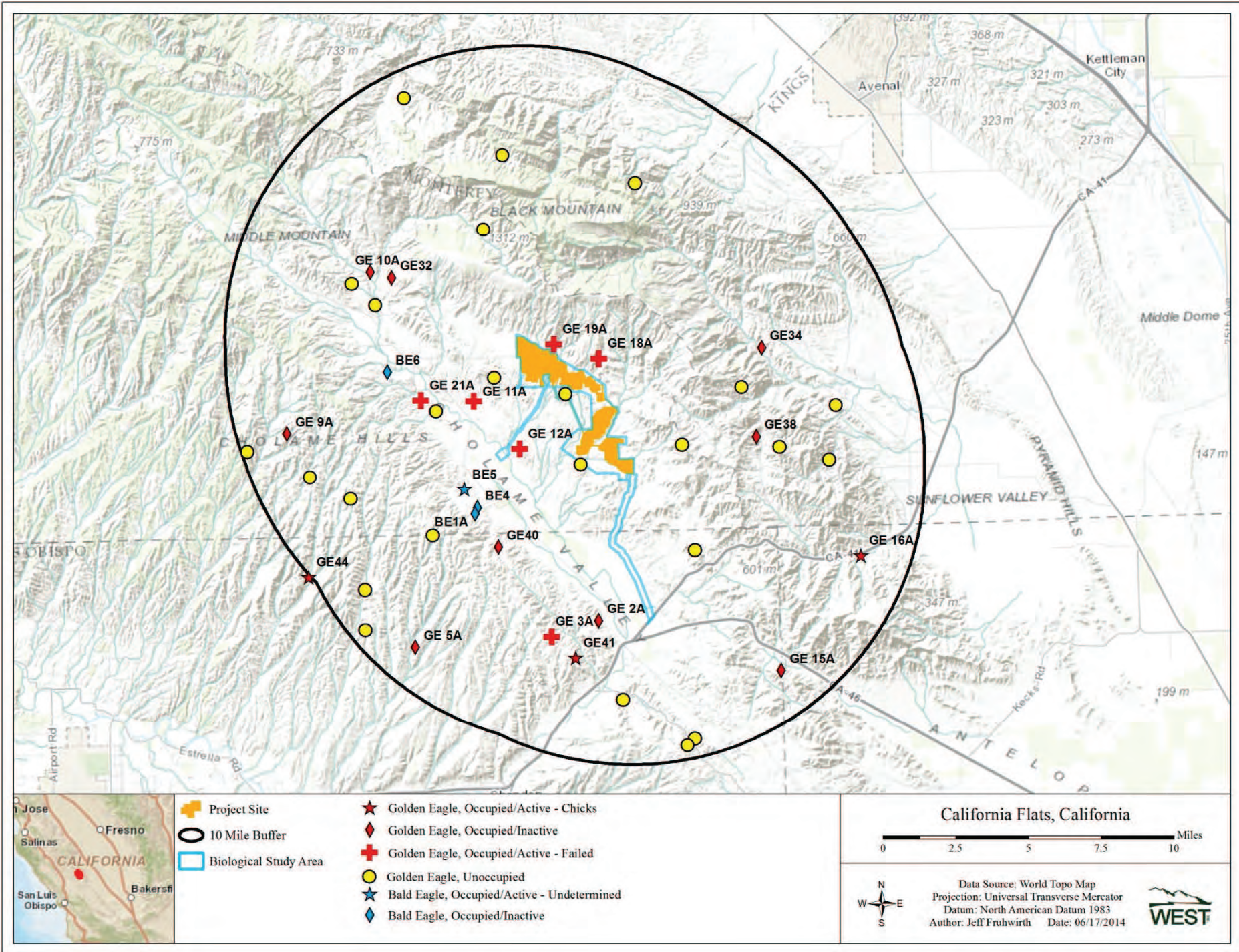


Figure 1. Eagle nest monitoring results from 2014 surveys at the proposed California Flats Solar Project

the flight paths flown by the helicopter during the survey. To minimize disturbance to nesting eagles, the helicopter maintained a maximum distance from the nests from which the nest status could still be ascertained.

3.0 RESULTS

During the April 2014 survey, WEST visited all 29 previously identified golden eagle nests and one previously identified bald eagle nest (Table 1). In addition to the previously identified eagle nests, an additional 18 previously unidentified golden eagle nests and an additional three previously unidentified bald eagle nests were encountered during the April survey (Table 1). Nine golden eagle nests and one bald eagle nest were found to be occupied and active during the April survey. Six nests found to contain eggs were tentatively recorded as having failed as these nests should have contained chicks at the time of the survey; however, to be sure that an adult had not flushed unseen by the surveyors from one of these nests as the helicopter approached, the nests were revisited during the May follow-up flight. Another 10 golden eagle nests were categorized as occupied-inactive due to the presence of one or more adult golden eagles in the immediate vicinity of an otherwise inactive nest.

During the follow-up nest check flight in May, the six nests that had been found to contain eggs but were tentatively recorded as having failed in April appeared to have indeed failed and the eggs were gone from the nests in all but one case. The remaining nest (GE21A) still contained two eggs, but no adults were again seen in the area. Three golden eagle nests that contained nestlings during the April survey were found to contain maturing nestlings (> 51 days old) during the May follow-up flight and these nests were therefore recorded as having successfully fledged young (USFWS 2013). One additional nest, that of a bald eagle, that contained an adult sitting tight in incubating/brooding posture during the April survey, was found to contain a maturing nestling (approximately 45 days old) during the May follow-up flight. As the age of the bald eagle nestling was less than the 51 days recommended by the USFWS to make a determination of nest success (USFWS 2013), the fate of this nest was recorded as undetermined. However, the bald eagle nestling appeared healthy and was attended by at least one adult so it is likely that this nest will prove successful.

3.1 Nest-Site Characteristics

WEST located the single active bald eagle nest in a large gray pine in an area of mixed pines, oaks, and various shrubs, interspersed with open grassy areas grazed by cattle. Among the nine active golden eagle nests documented in 2014, four (44%) were located in oaks (*Quercus douglassii* or *Q. lobata*), four (44%) in gray pines (*Pinus sabiniana*), and one (11%) in a black cottonwood (*Populus trichocarpa*; Table 1). Although cliff nesting is more common elsewhere, tree nesting is common in central California (Hunt et al. 1995, Kochert et al. 2002). Most of the other confirmed or potential golden eagle nests were located in oaks or gray pines, but several were located in cliff potholes (Table 1). The most common habitat association for nesting golden eagles throughout most of the survey area was a low-elevation, hillside oak or pine/oak

woodland adjacent to open grassland, with a large riparian oak or cottonwood adjacent to open grassland also occasionally used.

3.2 Nesting Territories

One-half the mean inter-nest distance has been used as a coarse estimate for the territory boundary in a number of raptor studies (e.g., Soutullo et al. 2013). As such, the USFWS (2012, 2013) recommends using nearest-neighbor distances among occupied nests to estimate approximate territory size in the vicinity of a project. Typically, this involves measuring the distances between occupied nests and calculating a mean inter-nest distance, with half this value being the radius of an eagle territory. For this Project, both occupied bald eagle and golden eagle nests were used to calculate this distance, since it appears that the bald eagles in the Project are using similar foraging and breeding habitat as the golden eagles, and would therefore be assumed to affect the territory of adjacent breeding golden eagles. Nearest-neighbor distances among occupied nests (active and inactive) ranged from 0.38 to 7.71 km (0.24 – 4.79 mi) with a mean inter-nest distance of 3.42 km [2.12 mi]. Note that two of the occupied-inactive bald eagle nests (BE1A and BE4) are located 0.38 km from each other; based on field observations it is assumed that both of these nests and nest BE5 are all occupied by the same bald eagle pair. Therefore, the overall range and mean is likely conservative (i.e., indicating a smaller/denser territory size than is actually the case). In comparison, in 2013, the nearest-neighbor distances for occupied eagle nests (active and inactive) had a mean of 4.9 km (3.0 mi; HTH 2013).

Understanding that eagle territories are not perfectly circular, the nearest-neighbor calculations for this study population nevertheless suggest that the typical distance that nesting eagles are defending is on the order of 1.05 to 1.5 miles from the nest. This range of values suggests that the territories of eagles that nest within 1.5 miles could overlap the Project site.

In other areas of the country where golden eagles are relatively common, the 3.42 to 4.9 km (2.12 – 3.0 mi) mean inter-nest distances recorded at the California Flats Project area in 2013 and 2014 appear comparable. For example, in 12 areas of Wyoming, mean distances between adjacent occupied golden eagle nests ranged from 3.1 to 8.2 km (1.9 – 5.1 mi, mean 5.3 km [3.3 mi]; Phillips et al. 1984). In Denali National Park, Alaska, among 72 golden eagle pairs, nearest-neighbor distances ranged from 1.5 to 8 km (0.9 – 5.0 mi, mean 6 km [3.7 mi]), and among 56 golden eagle pairs in southwest Idaho, nearest-neighbor distances were 0.8 to 16 km (0.5 – 9.9 mi, mean 4.3 km [2.7 mi]; Kochert et al. 2002).

One of the greatest densities of nesting golden eagles in California was documented in a radio-telemetry study conducted in Central California's oak savannah and woodland habitat near the Altamont Wind Resource Area near the northern end of the Diablo Mountain range (Hunt et al. 1995, 1999; Hunt 2002, Hunt and Hunt 2006). In this study area near Altamont, extensive radio-telemetry research demonstrated minimum densities of about 1 golden eagle pair per 30 square kilometers (Hunt 2002). While the data collected in the California Flats project area does not provide for a direct comparison, it appears habitats and likely eagle nesting densities (and

presumably territory sizes) in the Cholame Valley and the southern Diablo Range is roughly comparable to that found in similar habitats in the northern Diablo Range.

The relatively high density of occupied golden eagle territories recorded at the Project (2.12 to 3.0 mile mean inter-nest distance compared to 2.7 – 3.7 mile for other studies in the western U.S.) is likely in part due to the abundance of high quality foraging habitat located throughout the area. Preferred habitats include mountainous canyon land, rim-rock terrain of open desert and grassland areas, particularly those areas that are greater than 457 m (1,499 ft) in elevation (Kochert et al. 2002). In central California, the species nests primarily in open grasslands and oak savanna and to a lesser degree in oak woodland and open shrublands (Hunt et al. 1995, 1999), all habitats to be found in abundance surrounding the Project. In addition, golden eagles are common in grazed areas and much of the remaining habitat in central and southern California is found in patches of relatively inaccessible mountainous country, primarily livestock ranches (Thelander 1974) like those found within and surrounding the Project.

3.3 Nest Success and Productivity

The single bald eagle nest was last checked on 23 May when it was found to have one maturing nestling approximately 6–7 weeks old. While the nestling was too young to definitively state that this nest was successful, at 6–7 weeks old, the nestling was well on its way to fledging and the nest likely succeeded.

Six of the nine active golden eagle nests definitely failed prior to fledging (Table 3). Nests 3A, 11A, 12A, 18A, 19A, and 21A failed during incubation. At the time of the May survey, three other nests (16A, 13, and 19) each had raised one (16A) or two (13 and 19) chicks to at least 80% of fledging age (8 weeks).

If all three golden eagle nests with live chicks in May 2014 successfully fledged chicks, then the estimate of apparent nesting success would be 33% of nest starts fledged, and the estimates of productivity would be 0.55 fledglings per nest start and 1.7 fledglings per successful nest. In comparison, if all nine nests with live chicks in May 2013 successfully fledged two chicks, then the estimate of apparent nesting success would have been 75% of nest starts fledged, and the estimates of productivity would have been 1.5 fledglings per nest start and 2.0 fledglings per successful nest (HTH 2013). As was the case in 2013 (HTH 2013), it is likely that as many as 40–50% of the pairs present in the survey area either did not nest or nested but failed quickly, before surveys began. Only one golden eagle nest (16A) successfully fledged young in both 2013 and 2014. Golden eagle nest 16A is located high in a cottonwood on private property just south of Highway 41 southeast of the Project.

California is in the midst of a severe drought and it is possible this has had some impact upon golden eagles residing in the Project vicinity. However, golden eagle prey resources, particularly ground squirrels, appeared abundant during aerial surveys conducted in April and May 2014. While possibly related to the recent drought conditions, it is unclear why reproducing eagles fared better in 2013 than they did in 2014. However, it must be noted that these are rough

estimates of nest success as it is unknown whether any nests that appeared to be relatively well maintained but did not contain eggs or young at the time of surveys, may have failed before surveys began.

Table 1. Eagle nests monitored during the 2014 survey for the California Flats Solar Project.

| Nest ID | 2014 Species | Substrate | 2014 Status | 2014 No. Eggs | 2014 No. Young | 2014 notes |
|-------------------|--------------|--------------------|-------------------------|---------------|----------------|---|
| BE1A ^a | BAEA | Gray Pine | Occupied/Inactive | - | - | Likely same pair as BE14, BE15 |
| GE1A | GOEA | Oak | Unoccupied | - | - | Nest looked very old – poor condition |
| GE2A | GOEA | Oak | Occupied/Inactive | - | - | GOEA close to nest. |
| GE3A | GOEA | Oak | Occupied/Active/Failed | 2 | - | No GOEA seen |
| GE4A | GOEA | Oak | ? | | | Could not locate |
| GE5A | GOEA | Oak | Occupied/Inactive | - | - | 2 adult GOEA nearby |
| GE6A | GOEA | Oak | Unoccupied | - | - | Nest too small for eagle |
| GE7A | GOEA | Transmission tower | Unoccupied | | | Nest too small for eagle – ravens occupying |
| GE8A | GOEA | Gray Pine | Unoccupied | - | - | Appears too small for eagle – poor condition |
| GE9A | GOEA | Gray Pine | Occupied/Inactive | - | | Adult GOEA perched near nest |
| GE10A | GOEA | Gray Pine | Occupied/Inactive | - | | 2 adult GOEA close by |
| GE11A | GOEA | Gray Pine | Occupied/Active/Failed | 3 | - | 2 nests, adult GOEA present |
| GE12A | GOEA | Oak | Occupied/Active/Failed | 1 | - | No GOEA seen |
| GE13A | GOEA | Oak | Unoccupied | - | - | No GOEA seen |
| GE14A | GOEA | Oak | Unoccupied | - | - | Nest very old – very poor condition |
| GE15A | GOEA | Oak | Occupied/Inactive | - | - | Adult flying above nest |
| GE16A | GOEA | Cottonwood | Occupied/Active/Fledged | - | 1 | Nestling @60 days old May 23rd – standing in nest |
| GE17A | GOEA | Oak | - | | | Nest apparently blown out of tree or collapsed |
| GE17B | GOEA | Oak | Unoccupied | - | - | No GOEA seen |
| GE18A | GOEA | Gray Pine | Occupied/Active/Failed | 1 | | No GOEA seen |
| GE19A | GOEA | Oak | Occupied/Active/Failed | 1 | | No GOEA seen |
| GE20A | GOEA | Oak | Unoccupied | - | - | Nest appeared old – poor condition |
| GE21A | GOEA | Gray Pine | Occupied/Active/Failed | 2 | - | No GOEA seen |
| GE22A | GOEA | Gray Pine | Unoccupied | - | - | No GOEA seen |
| GE23A | GOEA | Cliff | Unoccupied | - | - | 3 nests – no GOEA in area |
| GE24A | GOEA | Oak | Unoccupied | - | - | No GOEA seen |
| GE25A | GOEA | Oak | Unoccupied | - | - | No GOEA seen |

Table 1. Eagle nests monitored during the 2014 survey for the California Flats Solar Project.

| Nest ID | 2014 Species | Substrate | 2014 Status | 2014 No. Eggs | 2014 No. Young | 2014 notes |
|-------------------|--------------|-----------|------------------------------|---------------|----------------|--|
| GE26A | GOEA | Cliff | ? | | | Could not locate |
| GE27A | GOEA | Cliff | ? | | | Could not locate |
| GE28A | GOEA | Oak | Unoccupied | - | - | Nest in very poor condition |
| GE29 ^b | GOEA | Gray Pine | Unoccupied | - | - | No GOEA seen – nest in good condition |
| GE30 | GOEA | Gray Pine | Unoccupied | - | - | No GOEA seen |
| GE31 | GOEA | Gray Pine | Unoccupied | - | - | No GOEA seen |
| GE32 | GOEA | Gray Pine | Occupied/Inactive | - | - | 1.5 km east of GE10A |
| GE33 | GOEA | Gray Pine | Unoccupied | - | - | No GOEA seen |
| GE34 | GOEA | Cliff | Occupied/Inactive | - | - | Nest tucked in cave - adult nearby |
| GE35 | GOEA | Oak | Unoccupied | - | - | No GOEA seen |
| GE36 | GOEA | Gray Pine | Unoccupied | - | - | No GOEA seen |
| GE37 | GOEA | Oak | Unoccupied | - | - | No GOEA seen |
| GE38 | GOEA | Oak | Occupied/Inactive | - | - | Adult GOEA close to nest |
| GE39 | GOEA | Oak | Unoccupied | - | - | No GOEA seen |
| GE40 | GOEA | Gray Pine | Occupied/Inactive | - | - | Eagle close to nest |
| GE41 | GOEA | Oak | Occupied/Active/Fledged | - | 2 | Nestlings @55 days old May 23rd – one in nest one perched on branch |
| GE42 | GOEA | Gray Pine | Unoccupied | - | - | No GOEA seen |
| GE43 | GOEA | Gray Pine | Unoccupied | - | - | No GOEA seen |
| GE44 | GOEA | Gray Pine | Occupied/Active/Fledged | - | 2 | Nestlings @55 days old May 23rd – adult feeding in nest |
| GE45 | GOEA | Gray Pine | Unoccupied | - | - | No GOEA seen |
| GE46 | GOEA | Gray Pine | Unoccupied | - | - | No GOEA seen |
| BE4 | BAEA | Gray Pine | Occupied/Inactive | | | Likely same pair as BE1A, BE15 |
| BE5 | BAEA | Gray Pine | Occupied/Active/Undetermined | - | 1 | Nestling @45 days old May 23rd – looked healthy – will likely fledge |
| BE6 | BAEA | Gray Pine | Occupied/Inactive | - | - | Adult at nest but nothing in it |

^a Nest ID numbers followed by a letter (A or B) are nests that were identified in 2013 or earlier.

^b Nest numbers not followed by a letter are nests that were first identified during the April 2014 survey.

Table 2. Success and Productivity of the Eagle Nests Monitored Within a 10-mile Buffer of the California Flats Solar Project in 2013.^a

| Nest ID | Status First Check | Nest Fate | Dead Eggs | Nestlings | Nestling Age (weeks) | 80% Fledglings |
|----------------|---------------------------|------------------|------------------|------------------|-----------------------------|-----------------------|
| GE2A | Nestlings | Nestlings | 0 | 2 | 4 | ? |
| GE3A | Incubating | Nestlings-Failed | 0 | 1 – 2 | 5 – 7 | 0 |
| GE4A | Incubating | Nestlings | 0 | 2 | 6 | ? |
| GE9A | Incubating | 80% Fledglings | 0 | 2 | 8 | 2 |
| GE10A | Incubating | Nestlings | 0 | 2 | 6 | ? |
| GE11A | Incubating | Failed | ? | 0 | - | 0 |
| GE12A | Incubating | Nestlings | 0 | 2 | 4 | ? |
| GE13A | Incubating | Nestlings | 0 | 2 | 2 – 3 | ? |
| GE14A | Incubating | Nestlings | 0 | 2 | 4 – 5 | ? |
| GE15A | Incubating | Nestlings | 0 | 2 | 4 | ? |
| GE16A | Nestlings | 80% Fledglings | 0 | 2 | 7 – 8 | 2 |
| GE23A | Incubating | Failed | ? | 0 | - | 0 |

^a From HTH 2013.

Table 3. Success and Productivity of the Eagle Nests Monitored Within a 10-mile Buffer of the California Flats Solar Project in 2014.

| Nest ID | Status First Check | Nest Fate | Dead Eggs | Nestlings | Nestling Age (weeks) | 80% Fledglings |
|-------------------|--------------------|----------------|-----------|-----------|----------------------|----------------|
| GE3A ^a | Eggs in nest | Failed | 2 | 0 | - | 0 |
| GE11A | Eggs in nest | Failed | 3 | 0 | - | 0 |
| GE12A | Egg in nest | Failed | 1 | 0 | - | 0 |
| GE16A | Nestlings | 80% Fledgling | 0 | 1 | 8 | 1 |
| GE18A | Egg in nest | Failed | 1 | 0 | - | 0 |
| GE19A | Egg in nest | Failed | 1 | 0 | - | 0 |
| GE21A | Eggs in nest | Failed | 2 | 0 | - | 0 |
| GE41 ^b | Nestlings | 80% Fledglings | 0 | 2 | 8 | 2 |
| GE44 | Nestlings | 80% Fledglings | 0 | 2 | 8 | 2 |
| BE5 | Brooding | Nestling | 0 | 1 | 6 – 7 | 0 |

^a Nest ID numbers followed by the letter A are nests that were identified in 2013 or earlier.

^b Nest numbers not followed by a letter are nests that were identified during the April 2014 survey.

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**California Flats Solar Project
Eagle Use Survey Interim Report
March 10 June 24, 2014**



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1.0 INTRODUCTION

California Flats Solar, LLC (California Flats) proposes to construct and operate a 280-megawatt (MW) photovoltaic (PV) solar generating facility referred to as the California Flats Solar Project in southeastern Monterey County, California. When approved, the solar facility and related operations infrastructure (Project site) will be built on approximately 2,562 acres (1,037 hectares) of the 72,000-acre (29,137-hectare) Jack Ranch, which is a working cattle ranch.

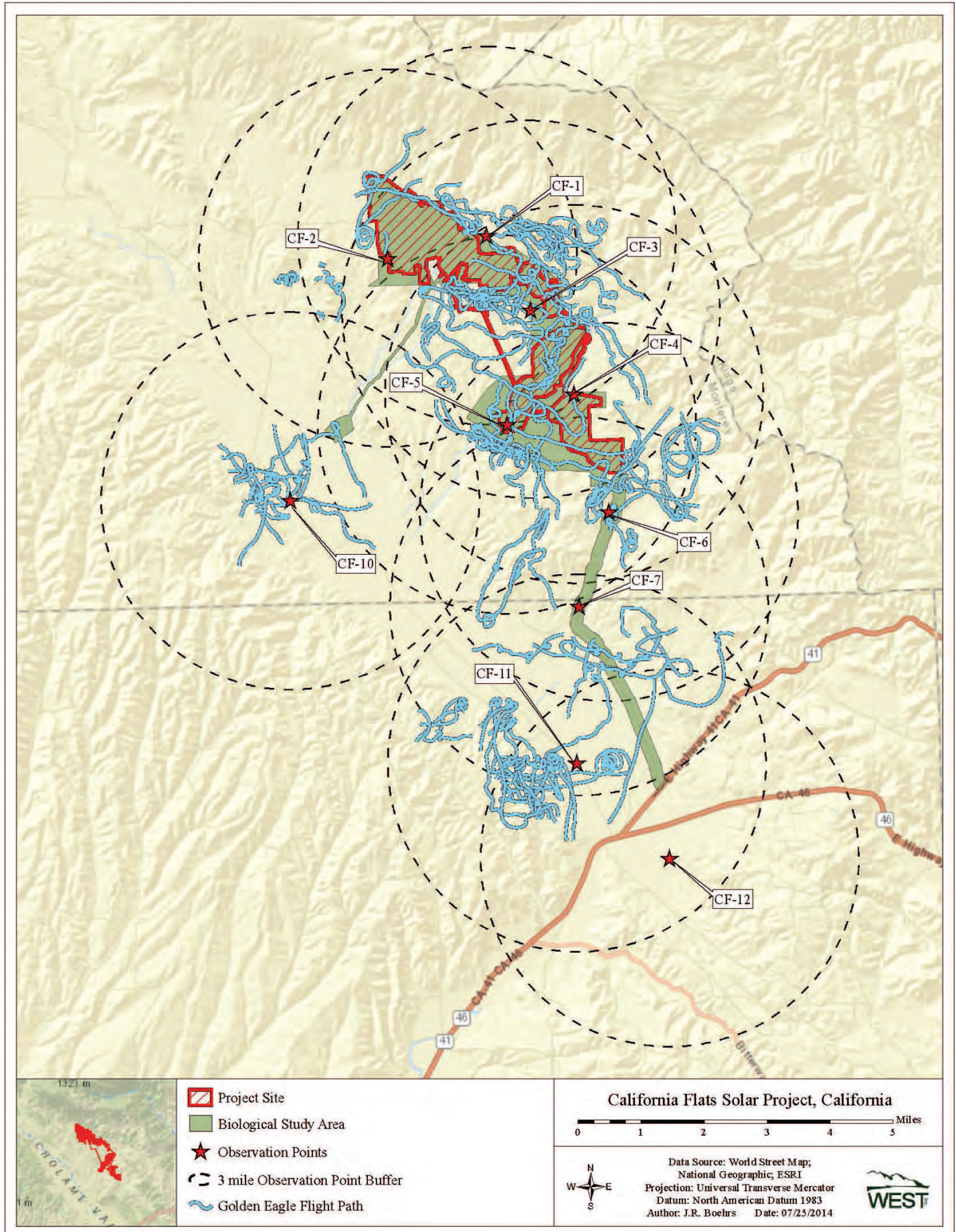
Under the direction of California Flats, Western EcoSystems Technology, Inc. (WEST) is conducting surveys in order to better understand eagle use at the Project site. Eagle use surveys began at the site in March 2014 and are scheduled to continue through December 2014. This interim report summarizes the results of the eagle use surveys conducted between March 10 and June 24, 2014.

2.0 METHODS

Eagle use/activity surveys were initiated by WEST in March 2014 and are scheduled to continue through December 2014. The purpose of the surveys is to characterize use of the Project site and surrounding landscape by golden eagles, particularly the foraging habits of locally breeding, migrant, and wintering eagles. Surveys are conducted every two weeks from 10 observation points including six points located within or adjacent to the Project site, and four points located in areas to the west and south of the Project site (Figure 1). Observation points were established in locations that afford broad overviews of the Project site and surrounding landscape and allow for effective documentation of the activity patterns and home-range dynamics of resident breeders, as well as use of the region by migrant and wintering eagles. Documentation of flight paths and identification of potential high activity areas (foraging, perching, roosting) or seasons is the primary focus of the survey effort. Each observation point is surveyed every two weeks for a continuous 3-hour period, with surveys scheduled such that observation periods cover most daylight hours (approximately 9:00 am to 6:00 pm) over the course of the 10-month study.

Although the focus of the surveys is eagles (particularly golden eagles), all raptors and other sensitive avian species seen or heard during each survey are recorded, as well as observations of these species made while in-transit between points. Data collected during each 3-hour survey include: date, start and end time of the observation period, plot number, species or best possible identification, number of individuals, sex and age class, distance from plot center when first observed, direction of flight, height above ground, activity, and habitat. Additionally, for each individual eagle observed during the survey period, the above data are recoded for each minute that eagle is in view.

Figure 1. Eagle Use Survey Locations and Digitized Golden Eagle Flight Paths, March 10 to March 24, 2014



3.0 RESULTS

As stated above, WEST began the eagle use/activity surveys in March 2014 and will continue them through December 2014. A final report will be prepared once the full survey has been completed; the results presented in this section represent data gathered from March 10 through June 24, 2014. Eagle flight paths mapped during this time period are shown on Figure 1.

Between March 10 and June 24, 2014, 122 golden eagles were seen over 219 hours of observation, for an average golden eagle use of 0.56 eagles observed per hour (obs/hr). Among the twelve points surveyed, the use ranged from 0.06 eagles obs/hr (CF12) to 1.08 eagles obs/hr (CF3). Points CF11 and CF10 had the second and third highest eagle use numbers, at 0.89 and 0.78 eagles obs/hr, respectively.

Over the 219 hours of the use survey, 776 minutes of golden eagle flight were observed, for an average activity of 3.54 eagle flight minutes per hour (flight min/hr); these numbers exclude the time that eagles were observed perching. Among the twelve points surveyed, the flight activity ranged from 0.28 golden eagle flight min/hr (CF 12) to 11.00 flight min/hr (CF11). Points CF3, CF10 and CF4 also had relatively higher use at 5.71, 5.11 and 4.43 golden eagle flight min/hr, respectively. The remaining points ranged from 1.46 to 2.79 eagle min/hr.

As the preliminary data shows, the highest use survey points to date are CF11 (highest flight minute/hr; second highest eagles obs/hr), which is located approximately 4.75 miles south of the Project site and one mile west of the access road, and CF3 (highest eagles obs/hr; second highest flight min/hr), which is located adjacent to the west-central edge of the Project site. CF10, located approximately three miles west of the Project site, is the third highest use point from both the eagles obs/hr and flight min/hr perspective.

Additionally, the mapped flight pathways indicate that golden eagles flying in the Project site vicinity from March through June are not using the landscape consistently and/or evenly. This may be due to a combination of factors that seem to attract higher levels of eagle use such as prey availability (based on the HTH burrowing animal survey, ground squirrel burrows appear particularly concentrated along the edge of drainages) and/or areas of steeper topography creating wind patterns conducive to efficient soaring. Additionally, a substantial amount of the activity that was observed near point CF1 on the northeast edge of the Project site was associated with golden eagle activity in the vicinity of the two active (failed) nests (GE19A and GE18A), while activity near points CF3 and CF5 on the west and southwest edge of the Project site was associated with golden eagles traveling to and from trees in the ravines outside of the Project site, which they used as temporary perching points.

Figures 2 and 3 provide a similar illustration of eagle flight activities as shown in Figure 1. In the case of Figures 8 and 9, the 100 m x 100 m grids are color coded based on the number of flight paths that cross a particular grid – thus providing a “heat index” of eagle activity. Figure 2 shows eagle flights from March 10 through April 6, 2014; Figure 3 shows eagle activity from April 7

through June 24, 2014. The maps were split between the two sets of dates because points CF10 – CF12 were not added to the survey until April 7; therefore each map shows a comparison of flights across the observed area in a date range where each survey point has equal hours of observation. As with Figure 1, these figures illustrate that over extended periods of observation of the Project site during the spring and early summer of 2014, eagles did not appear to be consistently using substantial portions of the Project site – particularly in some of the flatter areas where panels would be constructed.

An examination of the flight height and type of activity indicates that the majority (56%) of observed golden eagle flight minutes were eagles soaring over 200 m. Overall, the majority (73%) of activity observed was soaring at various heights, with flapping/gliding activities occurring for approximately 17% of the minutes, eagles being mobbed by other birds occurring for approximately 8% of the minutes, and stooping/diving at prey, antagonist stooping/diving at other eagles or birds, and other activities each taking up less than 2% of the minutes. No hunting or kiting/hovering activities were recorded during this time period. The majority (66%) of all activities occurred at heights over 200 m, followed by 100 – 200 m (11%), 0 – 20 m (9%), and 20 – 50 m and 50 – 100 m (7% each). Figure 4 shows the height/activity breakdown for flights recorded between March 10 and June 24, 2014.

Figure 2. Golden Eagle Flights, March 10 - April 7, 2014, Survey Points CF1 - CF100

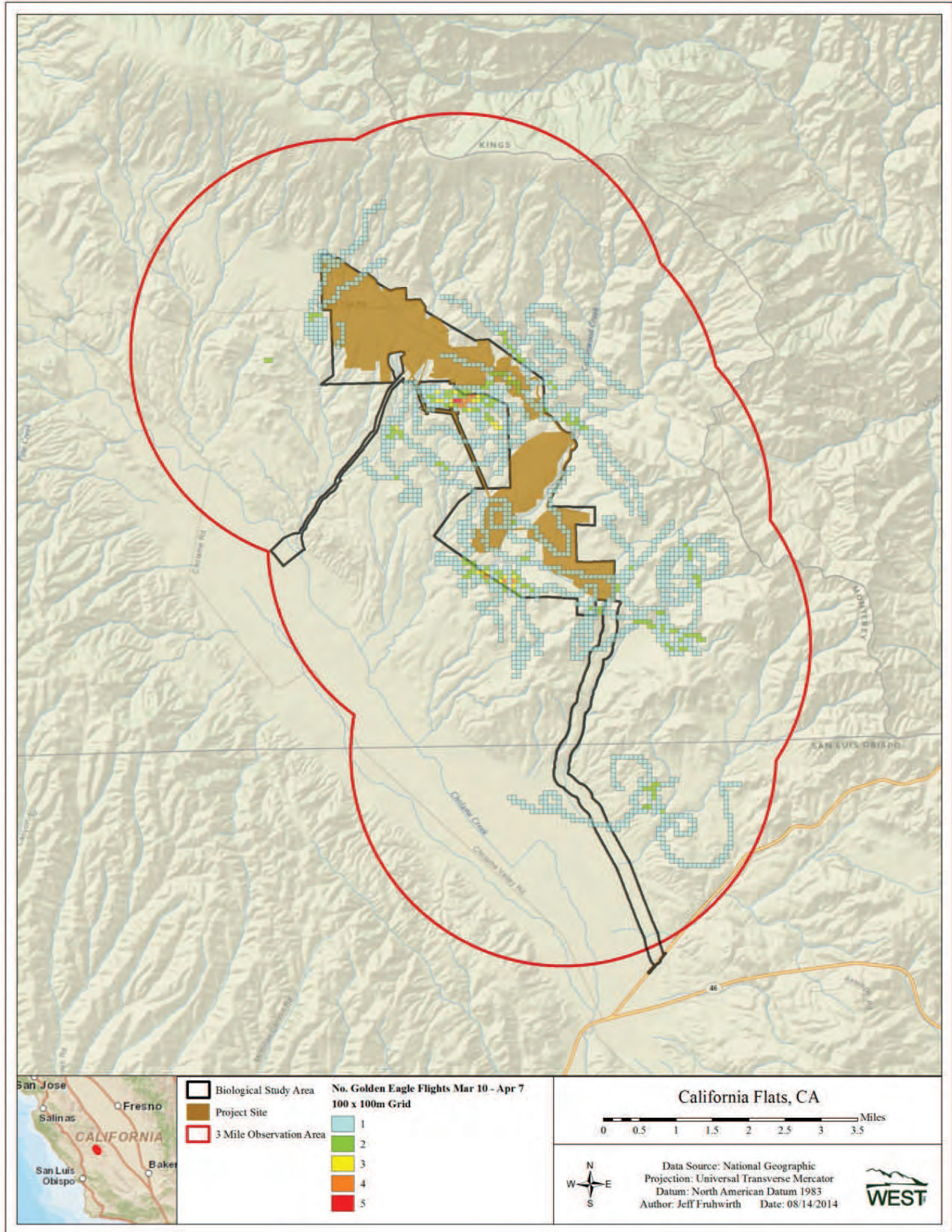


Figure 3. Golden Eagle Flights, April 7 - June 24, 2014, Survey Points CF1 - CF12

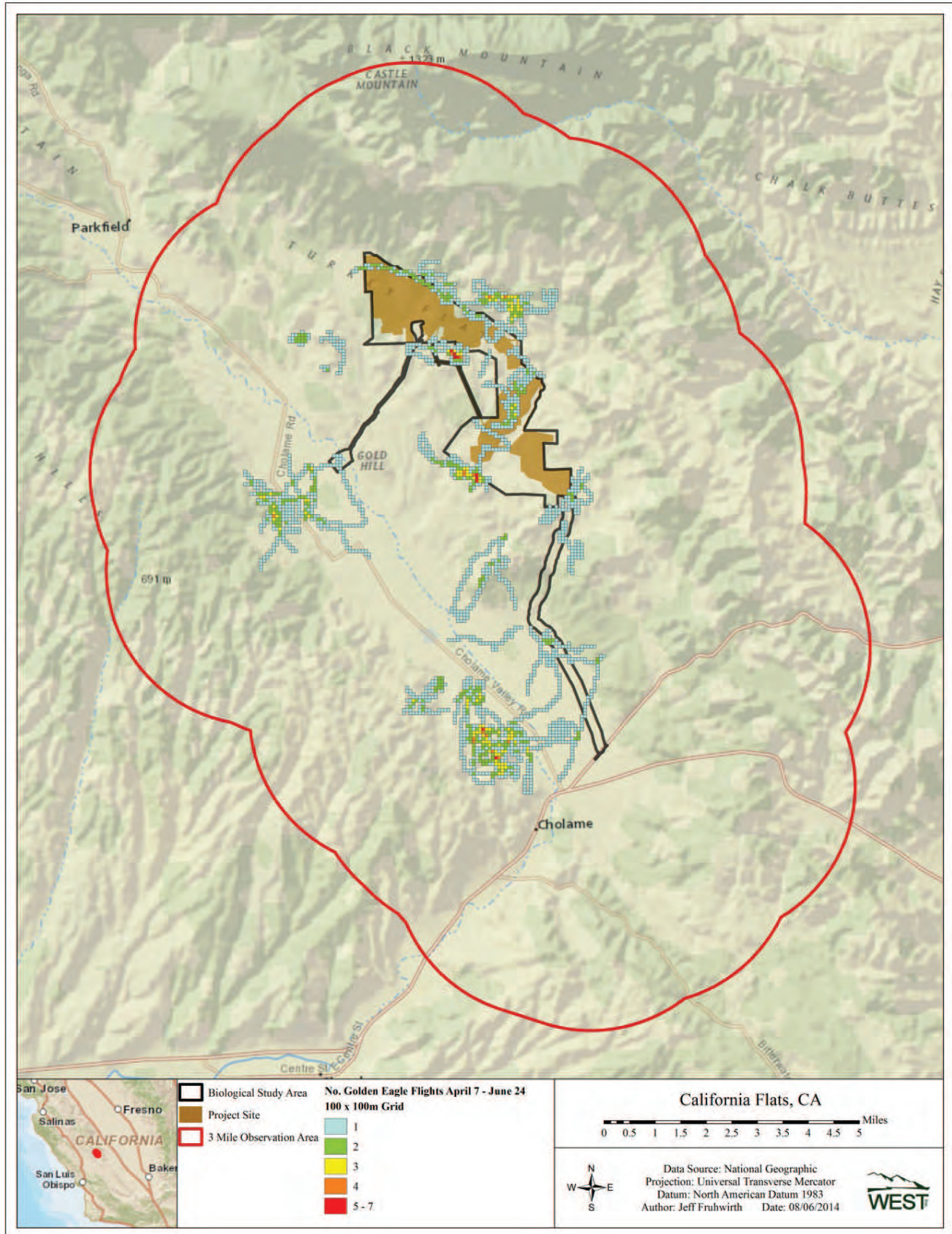
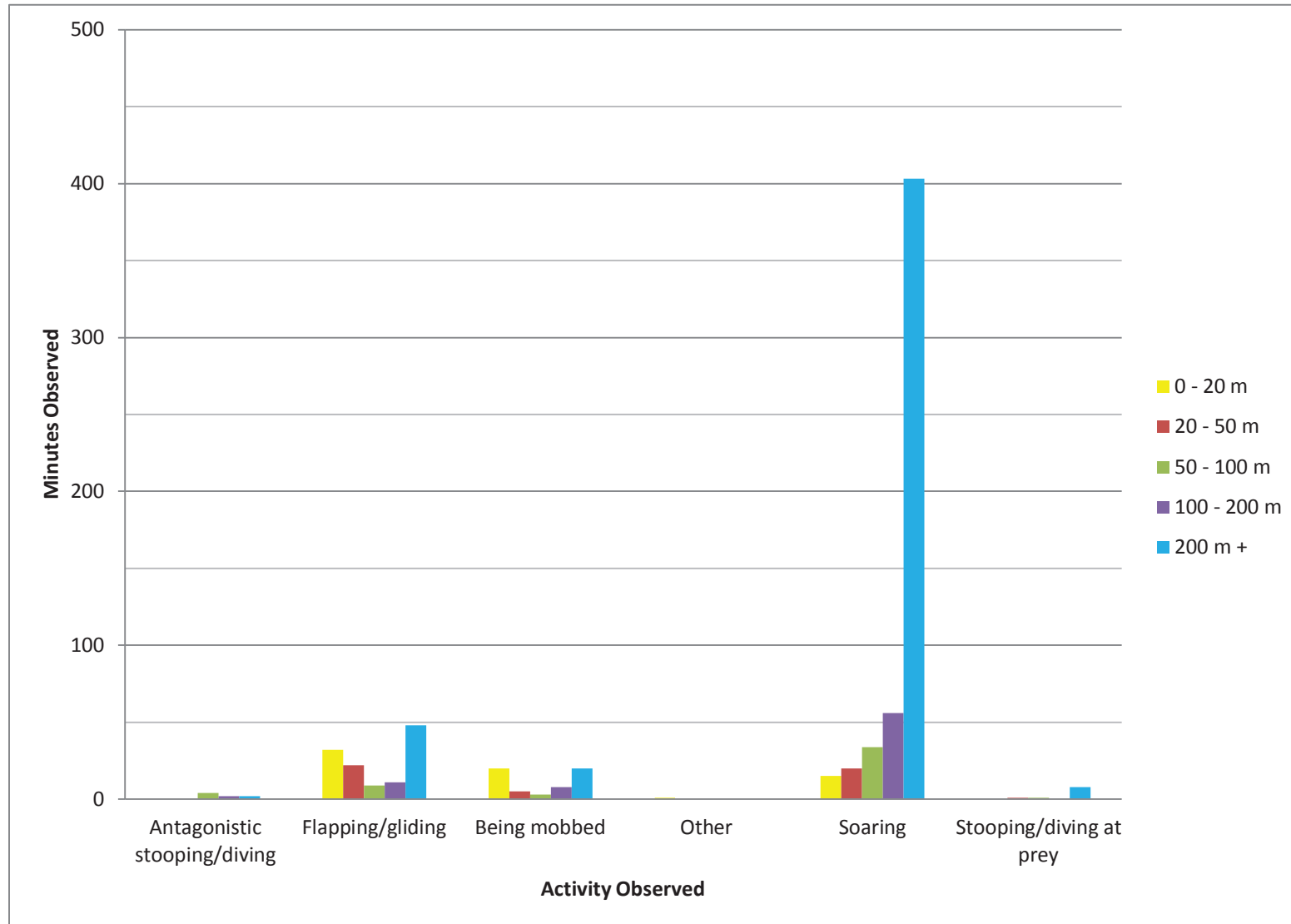


Figure 4. Golden Eagle Activity and Flight Height, March 10 June 24, 2014



Biologists also noted any other raptors or sensitive avian species seen during the eagle use surveys or during transit. Between March 10 and June 24, 2014, ten such species were noted (along with two unidentified raptors), as shown in Table 1.

Table 1. Raptors and Sensitive Avian Species Noted During Eagle Use Surveys

| Common name | Scientific name | Groups | Individuals |
|---------------------|--------------------|--------|-------------|
| American kestrel | Falco sparverius | 6 | 8 |
| Burrowing owl | Athene cunicularia | 2 | 3 |
| Common raven | Corvus corax | 2 | 3 |
| Ferruginous hawk | Buteo regalis | 1 | 1 |
| Northern harrier | Circus cyaneus | 1 | 1 |
| Osprey | Pandion haliaetus | 2 | 2 |
| Peregrine falcon | Falco peregrinus | 1 | 1 |
| Prairie falcon | Falco mexicanus | 4 | 5 |
| Red-tailed hawk | Buteo jamaicensis | 75 | 105 |
| Swainson's hawk | Buteo swainsoni | 1 | 1 |
| Unidentified raptor | n/a | 2 | 2 |

As Table 1 shows, very few raptors or other sensitive avian species were noted during the 219 hours of surveys that occurred in this time period. With the exception of red-tailed hawks (105 individuals in 75 groups), these species were not observed frequently, with most being documented only once or twice. Three special-status species were noted: the burrowing owl (3 individuals in 2 groups; state species of special concern [SSC]), northern harrier (1 individual; SSC), and Swainson's hawk (1 individual; state threatened). No other state or federal listed species were noted during the eagle use surveys.

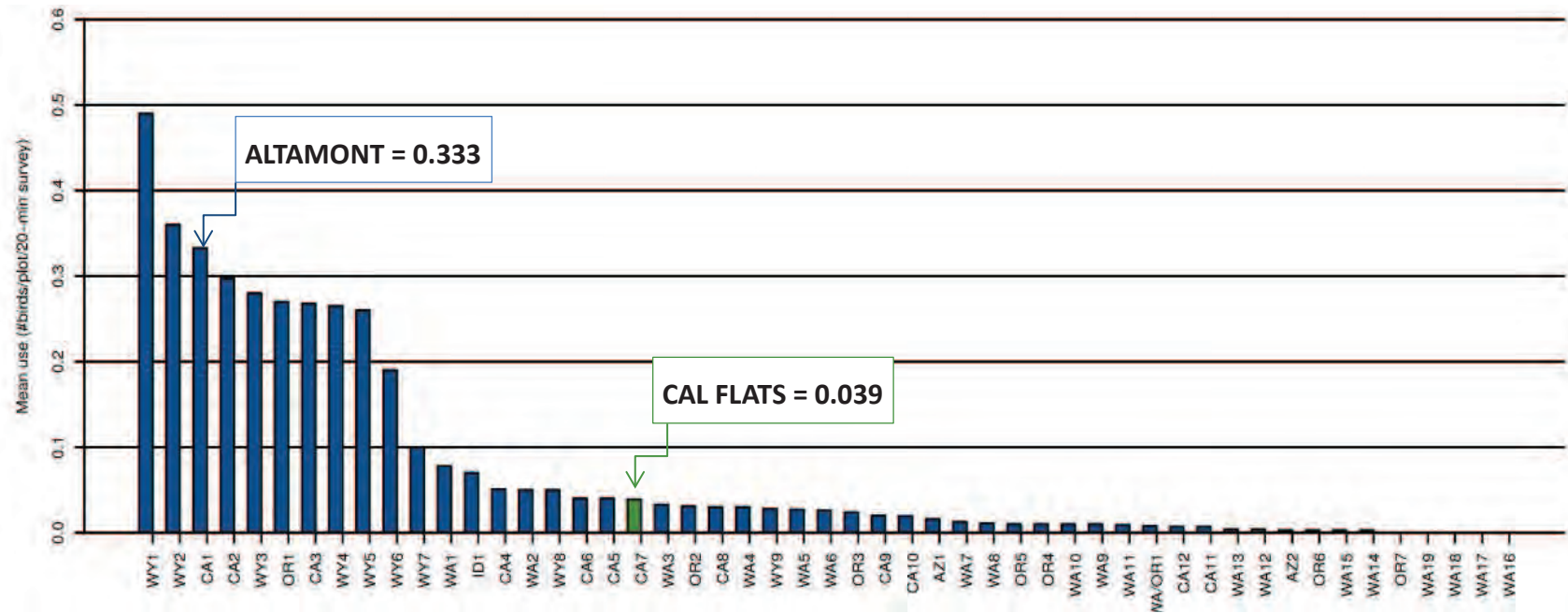
4.0 DISCUSSION CONCLUSIONS

The observed flight paths shown on Figures 1 through 3 indicate golden eagles are clearly using the general Project area (while bald eagles were observed in Cholame Valley, they were not seen during surveys of the Project site). To compare the level of golden eagle use observed to date at the California Flats site to that of other projects in the western U.S., the eagle obs/hr use rate was examined for those eagles that were observed within 800 m of the survey points per 20 minutes of observation (whereas the use rates discussed in Section 5.4.2 include all eagle observations out to any distance where they are identifiable, and are shown per one hour of observation). This was done to provide a similar basis for comparison, since most publicly available eagle use information is limited to 800-m radius survey plots for 20 minute survey periods. Figure 5 shows that the mean eagle use rate for California Flats (0.039 obs/20-min) is within the lower range of mean use rates compared to other Projects; it is lower than the use found at six other sites in California, and higher than five California sites.

As discussed above, it does not appear that golden eagles are relying relatively more on the Project site for foraging than on any of the surrounding landscape; in fact two of the highest use points are located more than 3 miles from the proposed solar arrays and eagles have not been observed using large portions of the Project site.

Once the surveys are completed, the eagle use analysis and discussion will be updated and a final report will be produced.

Figure . Comparison of Golden Eagle Use (Obs 20-min Survey 800 m) between California Flats and Other Projects in the Western U.S.



Letter 16

COMMENTER: Koryn Kendall, Manager, Project Development, First Solar, Inc.

DATE: September 22, 2014

Response 16.1

The commenter references several enclosed materials, including a comment letter on the DEIR and three attachments. Refer to responses 16.3 through 16.195 for responses to these referenced materials.

Response 16.2

The commenter explains that they are the applicant for the proposed project and provides a summary of the materials provided in their comment letter package. The comment is noted. Refer to responses 16.3 through 16.195 for responses to these referenced materials.

Response 16.3

The commenter notes that the locations of the PG&E switching station and proposed northern substation have been revised. The overall size of both facilities would remain the same; only the location within the solar development area would change. The commenter claims that the proposed changes would not result in any additional adverse environmental effects, cause an increase in severity of an identified impact, or result in a substantial change to the project that would deprive the public meaningful opportunity to comment on the project or a significant environmental effect.

In accordance with these applicant-proposed changes, Figures 2-4a, 2-4e and 2-4f have been revised and replaced with the figures provided following Table 1 in their comment letter. Refer to Section 4.0, *Amendments to the EIR*, for these revised figures.

Because the PG&E switching station and northern substation would only be relocated approximately 1,300 feet and 2,400 feet, respectively, the descriptions of both features contained in Section 2.5.1 (Energy-Related Infrastructure) in Section 2.0, *Project Description*, do not require revision.

As stated on page 2-14 in Section 2.0, *Project Description*, "The precise configuration of the panel arrays within the 2,120-acre solar development area (SDA) may vary to avoid environmental constraints identified over the course of environmental review. For the purpose of this analysis, environmental impacts are assessed for the entire project site, as shown in Figure 2-4a." Because the new proposed locations for the PG&E switching station and northern substation are still located within the SDA, impacts associated with their placement have already been assessed in the DEIR. Therefore, the proposed changes would not result in any additional environmental effects or cause an increase in severity of an identified effect. The commenter additionally claims that the new locations would completely avoid impacts to California macrophyllia and significantly reduce the extent of impacts to Navarretia. A review of the revised site plan and



Figures 7a, 8, and 9 in Appendix E.6 to the DEIR indicates that this is an accurate statement; however, because impacts to special status plant species are analyzed at the population level, rather than the species-specific level, no revisions to the DEIR are necessary.

Response 16.4

The commenter proposes to add two new applicant proposed measures (APMs) to the project description. These APMs have been added to Table 2-4 in Section 2.0, *Project Description*, as follows:

**Table 2-4
 Applicant Proposed Measures**

| APM Number | Proposed Measure |
|----------------------|---|
| <u>APM-10</u> | <p>The project proponent will prepare a Bird and Bat Conservation Strategy (BBCS) to identify conservation measures to minimize avian impacts, describe the avian use of the site, and describe a post-construction avian mortality monitoring program. This Avian Mortality Monitoring Program (AMMP) will monitor operational effects of the project on avian species. The AMMP will include the following elements:</p> <ul style="list-style-type: none"> • <u>Surveys of the solar arrays for bird mortality during the initial operations and maintenance phase;</u> • <u>Protocols for data collection, documentation, and reporting to the County;</u> • <u>Protocols to assess searcher efficiency and carcass removal; and</u> • <u>Minimum credentials of monitoring personnel and/or appropriate training.</u> |
| <u>APM-11</u> | <p>The applicant shall prepare a design level drainage analysis that will ensure that project facilities are not placed in areas where they would be subject to significant flood or erosion hazards or affect the existing capacity of affected watercourses. The design level drainage study will incorporate the following flood-risk and erosion avoidance measures contained in the Preliminary Drainage Report (RBF 2013) and in the Preliminary Drainage Analysis Addendum (Wallace Group 2014):</p> <ul style="list-style-type: none"> • <u>No modules shall be placed in areas where the product of the flow depth and flow velocity is greater than 9 square feet per second (corresponding to a hazard level 3, as defined in the Preliminary Drainage Report) during a 100-year, 24-hour storm event;</u> • <u>No transformers, substations, or inverters shall be placed in areas where the flow depth exceeds 2 feet (corresponding to a hazard level 3, as defined in the Preliminary Drainage Report) during a 100-year, 24-hour storm event;</u> • <u>Transformers, substations, or inverters constructed in areas where any inundation is expected to occur should be placed a minimum of 1 foot above the 100- year water surface elevation;</u> • <u>Solar modules constructed in areas where any inundation is expected to occur should be placed a minimum of 6-inches above the 100- year water surface elevation; and</u> • <u>Tracker actuator motors constructed in areas where any inundation is expected to occur should be placed a minimum of 6-inches above the 100- year water surface elevation.</u> <p><u>In addition, the design level drainage analysis shall contain measures to ensure that any project-related improvements within 50 feet from the top of bank of on-site drainages will not result in significant erosion related hazards and that these improvements will not affect the existing capacity of the affected watercourse, as required by Chapter 16.16 of the Monterey County Code. Prior to the issuance of grading permits, the applicant shall submit the design-level drainage analysis to the Monterey County Water Resources Agency for review and approval.</u></p> |



Response 16.5

The commenter states the opinion that the summary of Impact AES-1 in Table 4.1-1 in Section 4.1, *Aesthetics*, should be revised to indicate that the impact should be Class III, *less than significant*, rather than Class II, *significant but mitigable*. The analysis for Impact AES-1, as presented on pages 4.1-21 to 4.1-22, does not support this conclusion. Mitigation Measure AES-1 (Temporary Fencing at SR 41 Staging Areas) is required to reduce the impact to a less than significant level. Therefore, no revisions to the DEIR text will be made.

Response 16.6

The commenter states the opinion that the summary of Impact AES-2 in Table 4.1-1 in Section 4.1, *Aesthetics*, should be revised to indicate that the impact should be Class III, *less than significant*, rather than Class II, *significant but mitigable*. The analysis for Impact AES-3, as presented on pages 4.1-22 to 4.1-24, does not support this conclusion. Mitigation Measure AES-1 (Temporary Fencing at SR 41 Staging Areas) is required to reduce the impact to a less than significant level. Therefore, no revisions to the DEIR text will be made.

Response 16.7

The commenter states the opinion that the requirement in Mitigation Measure AES-3 (Minimize Construction Lighting) that “The [Construction Lighting] Plan shall include the location, type, and wattage of all external light fixtures and include catalog sheets for each fixture” should be removed. This information is considered critical to the County’s review and approval process of the Construction Lighting Plan, and will therefore remain part of the mitigation requirement.

Response 16.8

The commenter states that the proposed utility corridor would likely not be visible from Cholame Valley Road and provides suggested language to clarify this point in Section 4.1.2(c) (Proposed Project Viewshed) of the DEIR. The recommended text has not been inserted as provided by the commenter, however the following clarifying revisions have been made to the first paragraph of Section 4.1.2(c):

The proposed project site is not visible from any roadways, with the exception of one location on Turkey Flat Road where the public road terminates into the project site. The proposed utility corridor area is also within the viewshed of and Cholame Valley Road, which, due to the surrounding topography, generally have very limited views of the site, despite its size; however, due to the distance of the utility corridor from this roadway and intervening topography, it is unlikely that this project component would be visible from this roadway.

Response 16.9

The commenter points out that the DEIR does not acknowledge that the project includes APMs to address the potential environmental effects associated with project decommissioning. In



accordance with the commenter's suggestion, the following text has been added to the second to last paragraph in Section 4.1.3(a) (Methodology and Significance Thresholds):

As stated in Section 2.0, *Project Description*, project decommissioning, which would occur in 30 years or more, could potentially result in other environmental effects, depending on site-specific environmental conditions and the specific actions that would occur as part of decommissioning. The County may conduct additional CEQA review to ensure compliance with future aesthetic requirements during decommissioning. As described in Section 2.0, *Project Description*, the project includes APM-1 to ensure that all potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.

Response 16.10

The commenter argues that the proposed utility corridor would likely not be visible from Cholame Valley Road. As with response 16.8, the commenter-provided language to account for this opinion has not been added. However, the first paragraph under Impact AES-1 in Section 4.1, *Aesthetics*, has been revised as follows:

As noted in Section 4.1.2(c) (Proposed Project Viewshed), the project site is visible from Turkey Flat Road, ~~Cholame Valley Road~~, and SR 41. The proposed utility corridor area is also within the viewshed of Cholame Valley Road; however, due to the distance of the utility corridor from this roadway and intervening topography, it is unlikely that this project component would be visible from this roadway.

Response 16.11

The commenter argues that Impact AES-1 in Section 4.1, *Aesthetics*, should be considered Class III, *less than significant*, rather than Class II, *significant but mitigable*. The analysis in the DEIR does not support this conclusion. Mitigation Measure AES-1 (Temporary Fencing at SR 41 Staging Areas) is required to reduce the impact to a less than significant level. Therefore, no revisions to the DEIR text will be made.

Response 16.12

The commenter argues that Impact AES-2 in Section 4.1, *Aesthetics*, should be considered Class III, *less than significant*, rather than Class II, *significant but mitigable*. The analysis in the DEIR does not support this conclusion. Mitigation Measure AES-1 (Temporary Fencing at SR 41 Staging Areas) is required to reduce the impact to a less than significant level. Therefore, no revisions to the DEIR text will be made.

Response 16.13

The commenter argues that the proposed utility corridor would likely not be visible from Cholame Valley Road. This is generally consistent with the findings of the DEIR. However, to



clarify, the fourth paragraph of the *KOP Analysis* discussion in Impact AES-2 in Section 4.1, *Aesthetics*, has been revised as follows:

KOP 4 represents a location from which the proposed utility corridor infrastructure could be ~~some~~ somewhat visible from a public viewing location, although given the distance between the viewing location and proposed improvements it is unlikely that infrastructure improvements would be visible from this location. Figure 4.1-5 depicts pre- and post-project conditions as viewed from KOP 4. The proposed three-mile utility corridor is not included in the post-project visual simulation. The proposed utility corridor would generally be located to the southeast of the existing 230 kV Morro Bay Gates overhead transmission line. Because of the current visibility of the transmission line, this area is not a pristine view. The proposed overhead utilities in this corridor would be located along a similar path as the existing Morro Bay Gates infrastructure. Therefore, the proposed utility corridor would not substantially degrade this viewshed and would be generally consistent with the existing visual character of the area. Accordingly, ~~and~~ the visual impacts related to the proposed utility corridor are less than significant.

Response 16.14

The commenter notes that additional nighttime lighting may be needed on the site, depending on the nature of construction-related activities, although the extent of such lighting would be limited in duration. The DEIR states that “Temporary construction lighting would be limited to the 38-acre construction laydown area, an approximately 4 acre- temporary construction and material staging area northwest of SR 41, a 0.5-acre temporary construction staging area south of SR 41, and the project entrance.” The following clarifying statement has been added to the second paragraph under Impact AES-3 in Section 4.1, *Aesthetics*:

Temporary construction lighting would be limited to the 38-acre construction laydown area, an approximately 4 acre- temporary construction and material staging area northwest of SR 41, a 0.5-acre temporary construction staging area south of SR 41, and the project entrance. Additional temporary nighttime lighting may be needed, on an as-needed basis, elsewhere on the site depending on the nature of construction-related activities. This lighting would be used on an as needed basis to accommodate nighttime deliveries and/or for security purposes.

It should be noted that this additional lighting would not increase the severity of Impact AES-3, which states that “the proposed project would introduce new sources of lighting that could adversely affect the existing visual resources in the area. Impacts would be Class II, *significant but mitigable*.” Mitigation Measure AES-3 (Minimize Construction Lighting) would still apply, including to additional lighting outside of the previously identified areas.

Response 16.15

The commenter argues that the requirement in Mitigation Measure AES-3 (Minimize Construction Lighting) that “The [Construction Lighting] Plan shall include the location, type, and wattage of all external light fixtures and include catalog sheets for each fixture” should be



removed. This information is considered critical to the County's review and approval process of the Construction Lighting Plan, and will therefore remain part of the mitigation requirement.

Response 16.16

The commenter points out that the project is considered an allowable use with a permit under the County Zoning Ordinance. Accordingly, the following text has been added to the bottom of page 4.2-5 in Section 4.2, *Agricultural Resources*:

Monterey County Zoning Ordinance – Title 21. According to Title 21 of the Monterey County Code, the project site, including the utility corridor and the northern half of the existing private access road, are zoned Permanent Grazing/160 (PG/160 and Farmland/160 (F/160). The southern half of the access road, within San Luis Obispo County, is designated Agriculture. Chapter 21.34 (Regulations for Permanent Grazing Zoning Districts or "PG" Districts) of the Monterey County Code is intended to preserve, protect, and enhance those productive exclusive grazing lands in the County of Monterey. Projects considered "public and quasi-public uses, including public utilities," may be developed with a use permit under the site's existing zoning [Monterey County Zoning Ordinance §21.30.050(b) and §21.34.050(d)].

Response 16.17

The commenter points out that the DEIR does not acknowledge that the project includes APMs to address the potential environmental effects associated with project decommissioning. In accordance with the commenter's suggestion, the following sentence has been added to the last paragraph of Section 4.2.3(a) (Methodology and Significance Thresholds) in Section 4.2, *Agricultural Resources*:

...this EIR evaluates decommissioning based on current standard decommissioning practices, which include dismantling and repurposing, salvaging/recycling, or disposing of the solar energy improvements, and site restoration. As described in Section 2.0, Project Description, the project includes APM-1 to ensure that all potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time. The County may conduct additional CEQA review to ensure adequate protection of agricultural resources during decommissioning.

Response 16.18

The commenter requests a clarification in the text regarding temporary water facilities proposed in the utility corridor. Accordingly, the following clarifying revision has been made in the second paragraph of Impact AG-1 in Section 4.2, *Agricultural Resources*:

Development activities associated with the proposed project that could affect "Prime Farmland" or "Unique Farmland" would be limited to the installation of temporary water infrastructure (including pumping facilities and ~~an above-ground~~ portions of which would be above and below ground) associated with transporting



water from existing Ag Well #2 (as shown in Figure 2-4s in Section 2.0, *Project Description*) to the project site.

It should be noted that this text change is consistent with the project description, which states in the *Utility Corridor* discussion in Section 2.5.2 (Other Structures and Improvements) that the “approximately three-mile utility corridor would be used to locate an above and below-ground temporary water pipeline.”

Response 16.19

The commenter requests revisions to clarify that project design features are formalized as applicant proposed measures (or APMs). Accordingly, the following revisions have been made to the last paragraph under Impact AG-3 in Section 4.2, *Agricultural Resources*:

The proposed project contains design features (i.e., applicant proposed measures or APMs) intended to minimize the potential temporary impacts associated with project construction and thereby limit potential secondary effects to adjacent agricultural uses. Applicable measures include the implementation of Best Management Practices (BMPs) during project construction, including providing ongoing coordination with the adjacent property owners concerning construction activities (APM-2), installing mud shakers and/or rumble strips to limit the transport of invasive species (APM-3), implementing applicable SWPPP and erosion control measures (APM-7), implementing a dust control plan to minimize fugitive dust emissions (APM-4), developing a hazardous materials response plan (APM-6), and implementing a post-construction restoration and revegetation plan (APM-5). These measures would minimize the extent of potential indirect impacts to adjacent agricultural uses.

Response 16.20

The commenter requests revisions to acknowledge the use of proposed APMs. The following clarifying revision has been made to the mitigation measures discussion under Impact AG-3 in Section 4.2, *Agricultural Resources*:

Mitigation Measures. No mitigation measures are required. Although the impact would be less than significant without mitigation, the implementation of proposed APMs, as well as measures AQ-2a (Dust Control measures), BIO-2(b) and BIO-2(c), and HYD-2a through HYD-2c would further minimize impacts related to fugitive dust, invasive weeds, and accidental releases of contaminants that could degrade water quality.

Response 16.21

The commenter notes that the residual impacts under Impact AQ-2 indicate that the use of Tier 3 engines was included in the mitigation calculations, and suggests that the use of Tier 3 engines be specifically included in the required mitigation. As discussed in detail in response 4.2, Mitigation Measure AQ-2(c) has been added to require the project to use Tier 3 or equivalent construction equipment.



Response 16.22

The commenter recommends revising the third bullet of Mitigation Measure AQ-2(a) to provide additional flexibility to move water for dust control to areas where earth-disturbing work is being performed. This mitigation measure has been revised as follows:

- In order to avoid long distances and associated travel time between source wells and the work area, the project applicant shall employ the use of on-site temporary pipelines, stand tanks or other measures to reduce water truck travel on unstable, disturbed surfaces ~~to move water to the current work area and thereby reduce fill times for water trucks;~~

The above revisions have also been made to Table 4.3-1 (Impact and Mitigation Summary: Air Quality) and Table ES-1 in the *Executive Summary*.

Response 16.23

The commenter recommends revising the eighth bullet of Mitigation Measure AQ-2(a) to focus on controlling dust generated when heavy construction equipment travels on roads that have not been stabilized, rather than all dirt roads. The commenter states that dirt roads that have been stabilized as part of project construction would not be a source of dust emissions and therefore would not require water trucks to mitigate dust emissions. In order to ensure that dust is controlled to the extent feasible, while limiting unnecessary water use during construction, this mitigation measure has been revised as follows:

- Heavy construction equipment traveling on unstabilized dirt ~~dirt~~ roads on the project site shall be preceded by a water truck to dampen roadways and reduce dust from transportation along such on-site dirt ~~on-site dirt~~ roads;

The above revisions have also been made to Table 4.3-1 (Impact and Mitigation Summary: Air Quality) and Table ES-1 in the *Executive Summary*.

Response 16.24

The commenter recommends revising the tenth bullet of Mitigation Measure AQ-2(a) to provide greater clarity as to when and where the Restoration and Revegetation Plan should be implemented. The commenter also states that schedules for conducting revegetation for habitat mitigation as compared to revegetation for dust mitigation may conflict, but notes that the Restoration and Revegetation Plan would contain the directions for when and where implementation would occur (refer to Mitigation Measure B-2[b] in Section 4.4, *Biological Resources*, of the DEIR). As stated in Mitigation Measure AQ-2(a) in Section 4.3, *Air Quality*, "Permanent dust control measures identified in the proposed Habitat Restoration and Revegetation Plan [refer to Biology Mitigation Measure B-2(b)] shall be implemented as soon as possible following completion of any soil disturbing activities."



Response 16.25

The commenter states that Mitigation Measure AQ-6(a) is overly protective, based on the claim that Monterey County is not a high-risk area for Valley Fever, and that other recent EIRs prepared by the County do not identify Valley Fever as a potential impact from dust generated during construction activity. The commenter suggests revisions to components of the Valley Fever Management Plan required by Mitigation Measure AQ-6(a) based on controls that have been found effective at other solar facilities under construction in endemic areas of the State, including the Topaz Solar Project in San Luis Obispo County.

As noted in the DEIR, Monterey County is within an area where Valley Fever is suspected endemic by the Centers for Disease Control and Prevention (CDC, 2013), and cases of Valley Fever have recently been reported by construction personnel working at two solar energy facilities in the Carrizo Plains, San Luis Obispo County.

Mitigation Measure AQ-6(a) has been revised to reflect some – but not all – of the commenter’s recommended changes. The revisions to Mitigation Measure AQ-6(a) consist of clarifications of roles and responsibilities with regard to Valley Fever prevention measures, but do not reduce or eliminate any provisions intended to prevent Valley Fever. Mitigation Measure AQ-6(a) has been revised as follows:

AQ-6(a) Valley Fever Management Plan. The project applicant shall identify and retain a licensed occupational medicine physician (M.D.) specializing in pulmonary epidemiology, subject to approval by the ~~consult with the Monterey County Health Department (Health Officer), the MBUAPCD, and the California Occupational Safety and Health Administration (Cal/OSHA) Compliance Program to assist with the~~ development and implementation of a Valley Fever Management Plan (VFMP). The VFMP shall that includes a job hazard analysis [in compliance with California Occupational Safety and Health Administration (Cal/OSHA) regulations] for any worker that will be exposed to dust. The VFMP shall further include specific measures to reduce the potential for exposure to Valley Fever. The project applicant and the Monterey County Health Department may consult with MBUAPCD and the Cal/OSHA Compliance Program as needed in identifying a specialist M.D. and in developing the VFMP.

~~Prior to issuance of grading permits, the applicant shall submit the Valley Fever Management Plan VFMP to the Monterey County RMA – Planning Health Department for review and approval. The Valley Fever Management Plan VFMP shall include a program to evaluate the potential for exposure to Valley Fever from construction activities and to identify appropriate dust management and safety procedures that shall be implemented, as needed, to minimize personnel worker and public exposure to potential Valley Fever containing dust potentially containing the *Coccidioides* spore. Measures in the Valley~~



~~Fever Management Plan VFMP, which shall be implemented as applicable~~ may include the following:

- Provide HEP-filtered air-conditioned enclosed cabs on heavy equipment. Train workers on proper use of cabs, such as turning on air conditioning prior to using the equipment.
- Provide communication methods, such as two-way radios, for use in enclosed cabs.
- ~~Provide National Institute for Occupational Safety and Health (NIOSH) approved respirators for workers.~~
- ~~Conduct a job hazard analysis in compliance with Cal/OSHA regulations for any worker that will be exposed to dust.~~
- ~~Require National Institute for Occupational Safety and Health (NIOSH)-approved-half-face respirators equipped with N-100 or P-100 filters to be used during digging any worker collocation with surface disturbance activities if determined to be warranted after conducting a needed based upon the applicable job hazard analysis. Require employees to wear respirators when working near earth-moving machinery if determined to be warranted after conducting a job hazard analysis.~~
- Cause employees to Workers that are required to use respirators as determined by a job hazard analysis shall be medically evaluated, fit-tested, and properly trained on the use of the respirators, and implement a full respiratory protection program shall be implemented in accordance with the applicable Cal/OSHA Respiratory Protection Standard (8 CCR 5144).
- Provide separate, clean eating areas with hand-washing facilities.
- Thoroughly clean construction tools, equipment, and vehicles with water before they are moved offsite to other work locations.
- ~~Wheel washing facilities with water recycling systems shall be provided at all site egress points. Vehicles leaving the site on a daily basis shall utilize wheel washing facilities in order to reduce dust migration off the project site. Equipment inspection and washing stations shall be established and manned at each construction equipment access/egress point. Spot examination of construction equipment for water washing via portable equipment in accordance with SWPPP BMPs shall be performed in order to prevent track-out of transport of material potentially carrying the *Coccidioides* spore.~~
- Suitable coveralls and change facilities shall be made available to all on-site workers. On-site workers Workers performing work in areas where fresh ground disturbance presents a risk of exposure to the *Coccidioides* spore shall be required to change clothes after work every day before leaving the work site, to prevent distribution of *Coccidioides* to non-endemic areas, as determined to be needed based upon the applicable job hazard analysis. As an alternative, disposable Tyvek® or equivalent work suits and work boots for use on-site shall be provided for workers.



- Establish sub-contract language clearly indicating that all subcontractors are obligated to comply fully with the meaning and intent of Title 8 California Code of Regulations Sections 5141 and 5144, subject to audit and contract enforcement by the applicant.
- Establish and execute auditing protocols to ensure subcontractor compliance with all provisions of the VFMP and provide monthly audit summary data, potential deviations noted and corrective actions implemented to the Monterey County Department of Health and County of Monterey RMA-Planning Department.
- Work with a medical professional. Each primary employer of contracted workers shall be required by the terms and conditions of their contract for services to retain and consult with an Occupational Medicine Professional, licensed by either the Medical Board of California or the Osteopathic Board of California to develop a protocol to medically evaluate employees who develop symptoms of Valley Fever. Reporting of symptoms of Valley Fever and diagnosed cases of Valley Fever must occur consistent with Cal/OSHA County and State requirements.

The above revisions have also been made to Table 4.3-1 (Impact and Mitigation Summary: Air Quality) and Table ES-1 in the *Executive Summary*.

Response 16.26

The commenter requests that, for the reasons cited in comment 16.25, Mitigation Measure AQ-6(b) be revised for clarification. Mitigation Measure AQ-6(b) has been revised as follows (refer also to response 4.6):

- AQ-6(b) Additional Valley Fever Dust Suppression Measures.** If peak daily wind speeds exceed 15 mph or peak daily temperatures exceed 95 degrees Fahrenheit for three consecutive days, additional dust suppression measures (such as additional water or the application of additional soil stabilizer) shall be implemented prior to and immediately following ground disturbing activities. The additional dust suppression shall continue until winds are 10 mph or lower and outdoor air temperatures are below a peak daily temperature of 90 degrees for at least two consecutive days. The additional dust suppression measures shall be incorporated into the Final Construction Management Plan. The Final Construction Management Plan shall be submitted to the County of Monterey RMA-Planning Department for review and approval prior to ~~the issuance of any grading permit~~ commencing ground disturbing activities (e.g., grading, filling, trenching).

The above revisions have also been made to Table 4.3-1 (Impact and Mitigation Summary: Air Quality) and Table ES-1 in the *Executive Summary*.



Response 16.27

The commenter requests that, for the reasons cited in comment 16.25, Mitigation Measure AQ-6(d) be revised for clarification. Mitigation Measure AQ-6(d) has been revised as follows (refer also to response 7.6):

AQ-6(d) Valley Fever Worker Training Program and Safety Measures. Prior to any project grading activity, the primary project construction contractor shall prepare and implement a worker training program that describes potential health hazards associated with Valley Fever, common symptoms, proper safety procedures to minimize health hazards, and notification procedures if suspected work-related symptoms are identified during construction, including the fact that certain ethnic groups and immune-compromised persons are at greater risk of becoming ill with Valley Fever. The objective of the training shall be to ensure the workers are aware of the danger associated with Valley Fever. The worker training program shall be included in the standard in-person training for project workers, and shall identify safety measures to be implemented by construction contractors during construction, including all safety measures included in the Valley Fever Management Plan prepared pursuant to Mitigation Measure AQ-6(a). Prior to initiating any grading, the project applicant shall provide the Monterey County RMA – Planning Department and the ~~County of Monterey Environmental~~ County Health Bureau Department with copies of all educational training material for review and approval. No later than 30 days after any new employee or employees begin work, the project applicant shall submit evidence to the Monterey County RMA – Planning Department that each employee has acknowledged receipt of the training (e.g., sign-in sheets with a statement verifying receipt and understanding of the training).

The above revisions have also been made to Table 4.3-1 (Impact and Mitigation Summary: Air Quality) and Table ES-1 in the *Executive Summary*.

Response 16.28

The commenter requests that, for the reasons cited in comment 16.25, Mitigation Measure AQ-6(e) be revised for clarification. Mitigation Measure AQ-6(e) has been revised as follows:

AQ-6(e) Valley Fever Information Handout. The applicant shall work with a medical professional, in consultation with the Monterey County Health Department, to develop an educational handout for on-site workers and surrounding residents within three miles of the project site, and include the following information on Valley Fever: what are the potential sources/ causes, what are the common symptoms, what are the options or remedies available should someone be experiencing



these symptoms, and where testing for exposure infection is available. Prior to construction permit issuance, this handout shall have been created by the applicant and reviewed by the County. No less than 30 days prior to any surface disturbance (e.g., grading, filling, trenching) work commencing, this handout shall be mailed to all existing residences within three miles of the project boundaries.

The above revisions have also been made to Table 4.3-1 (Impact and Mitigation Summary: Air Quality) and Table ES-1 in the *Executive Summary*.

Response 16.29

The commenter suggests the addition of language to Section 4.4.3(a) (Methodology and Significance Thresholds) of Section 4.4, *Air Quality*, to indicate that the project includes APM-1 to address the potential environmental effects associated with project decommissioning. The discussion in question is intended to present the methodology for the analysis of impacts from decommissioning. The applicant-suggested language would more appropriately be located in the impact analysis. APM-1 is already described in the discussion for Impact AQ-7, which describes decommissioning. Therefore no revisions are necessary to acknowledge this APM.

Response 16.30

The commenter states that Impact AQ-2 should include a reference to the APMs the applicant has proposed to reduce temporary construction emissions. The *Total Short-Term Construction Emissions* discussion under Impact AQ-2 in Section 4.3, *Air Quality*, has been modified to discuss APM-2 through APM-5, as follows:

Total Short-Term Construction Emissions. As described above and shown in Table 4.3-5, temporary emissions during construction would exceed MBUAPCD thresholds for PM₁₀ and NO_x. As described in Section 2.0, *Project Description*, the project includes APM-2 through APM-5, which would reduce temporary emissions associated with construction of the proposed project...

Response 16.31

The commenter states that Impact AQ-5 should be clarified to identify the nature of potential odor impacts to adjacent sensitive receptors. The third paragraph under Impact AQ-5 in Section 4.3, *Air Quality*, has been revised to more clearly explain why potential odor impacts during construction activity would be less than significant, as follows:

Construction-related odors would be short-term, and would cease upon completion. There are two residences located within 1,000 feet of the project site, and due to the proximity of these receptors to construction-related activities and overall size of the project site, these residences would only be exposed to construction activity for a relatively short portion of the total construction schedule. Therefore, short-term fueling odors during construction would not impact a substantial number of people. During construction activities, only short-term, temporary odors from vehicle exhaust and construction equipment engines



would occur. The project does not include any known sources of objectionable odors for the long-term operations phase.

Response 16.32

The commenter states that the three cases of Valley Fever that occurred at the Topaz Solar Farm project described in the DEIR were determined to be non-occupational, and requests that the DEIR be revised to reflect this. The commenter does not provide evidence for this statement. In addition, the suggested revision would not result in a change to the environmental analysis, impacts, or mitigation. Therefore, no changes have been made to the DEIR in response to this comment.

Response 16.33

The commenter requests that the DEIR be revised to include references to applicant-proposed measures (APMs) that would reduce the potential for environmental impacts associated with Valley Fever. The last paragraph of Impact AQ-6 in Section 4.3, *Air Quality*, has been revised to reflect this information, as follows:

The project applicant and all construction contractors operating on the site would be required implement all of California Title 8 safety and health regulations necessary to protect employees. As described in Section 2.0, *Project Description*, the project includes APM-3 through APM-5, which would reduce fugitive dust emissions associated with construction of the proposed project. Standard construction Best Management Practices (BMPs) to minimize fugitive dust emissions, as well as standard erosion control measures, would minimize potential hazards associated with the release of fungal spores and are consistent with the recommendations of the California Department of Public Health...

Response 16.34

The commenter notes that the DEIR states that decommissioning impacts could be significant due to impacts associated with criteria pollutant emissions, exposure of sensitive receptors to substantial pollutant concentrations, odors, and Valley Fever, and that this statement is inconsistent with the DEIR's conclusions that Impact AQ-4 and Impact AQ-5 are less than significant without mitigation, and the conclusion that Impact AQ-6 is less than significant with mitigation. The second paragraph under Impact AQ-7 in Section 4.3, *Air Quality*, has been revised to clarify that exposure of sensitive receptors to substantial pollutant concentrations, odors, and exposure of sensitive receptors to potential health hazards associated with the *Coccidioides* fungus would not result in potential decommissioning-related impacts to regional air quality, as follows:

Before the proposed project site is decommissioned, pursuant to APM-1, the project proponent would prepare a decommissioning plan that identifies the specific plan and process that would be implemented during decommissioning, as well as the site-specific environmental, regulatory, and technological conditions at the time of decommissioning (See APM-1 in Table 2-4). As stated in Section 2, *Project Description*,⁷ at least 90 days prior to initiating any decommissioning activities, the project proponent shall submit design-level information (e.g., grading plans, demolition plans, etc.) to the County of Monterey for



review. All design-level information shall be consistent with then-current County of Monterey planning and building requirements that may be necessary for the issuance of any grading, demolition, use or other necessary permit from the County of Monterey. The County may conduct additional CEQA review to ensure adequate prevention and/or mitigation of air quality impacts during decommissioning. However, due the potential for decommissioning-related impacts to regional air quality, including temporary air pollutant emissions (as discussed in Impact AQ-2), ~~exposure of sensitive receptors to substantial pollutant concentrations (as discussed in Impact AQ-4), odors (as discussed in Impact AQ-5),~~ and unmitigated exposure of sensitive receptors to potential health hazards associated with the *Coccidioides* fungus (as discussed in Impact AQ-6), this impact would be potentially significant.

Response 16.35

The commenter notes a four-acre discrepancy in the total acreage of the BSA (5,033 acres) and the sum of acreages of the three study areas (Solar Generating Facility Study Area [SGFASA], Utility Corridor Study Area [UCSA] and Access Road Study Area [ARSA]; 5,037 acres), and notes that this is a result of overlap of the UCSA and SGFASA. To clarify this discrepancy, the first paragraph of Section 4.4.2 (Setting) has been revised as follows:

...and an approximately 155-acre study area around the Utility Corridor (of which four acres overlap with the SGFASA).

Response 16.36

The commenter remarks on the discussion of California condor in Section 4.4.3(b) (Project Impacts and Mitigation Measures) and argues that the last sentence of first paragraph incorrectly suggests that the construction and operation of the project may increase the amount of carrion from grazing animals or other wildlife that may occur on the project site, which could attract condors to the site, and concludes that to the contrary, there is no basis to conclude that construction and operation of the project would increase the amount of carrion on the project site over pre-existing baseline levels. The commenter requests revisions to state that the project would not result in increased levels of carrion. The sentence in question reads as follows: "However, carrion from grazing animals or other wildlife that may occur on the project site during the construction or operation phases of the project could attract condor to the site." This statement does not suggest that the project may increase the amount of carrion on the project site, only noting that whatever carrion may occur on the site could attract condors. The EIR does not specifically state that project construction or operation would increase the level of carrion on the project site.

Response 16.37

The commenter notes that in the first sentence in Section 4.4.3(b) (Project Impacts and Mitigation Measures) under *Direct Impacts to California Condor* the term "would" should be replaced with "could." The comment is noted and the discussion under *Direct Impacts to California Condor* in Impact B-1 has been revised as follows:



Direct Impacts to California Condor. Direct impacts ~~w~~could include mortality or injury of California condors, and loss of foraging habitat.

Response 16.38

The commenter remarks on the *Indirect Impacts to California Condors* discussion under Impact B-1 and notes that the first sentence contains unsupported statements referencing a long-term decline in condor population viability. These statements are in fact contradicted by the analysis later in the same paragraph (and by prior analysis in the discussion of condors), which concludes that the project would result in no indirect impacts to California condors. The referenced discussion has therefore been revised as follows:

Indirect Impacts to California Condor. Indirect impacts could include the long-term decline in population viability for California condors; ~~Since~~however, no roosting or nesting habitat will be affected, and since the project site comprises only a very small area of foraging habitat relative to what is available in the region, no indirect impacts to California condors are expected.

Response 16.39

The commenter remarks on the *Direct Impacts to Golden Eagles* discussion under Impact B-1 and suggests that the statement that the project could disrupt golden eagle nesting behaviors is not supported by the facts because the site does not support nesting habitat or nesting golden eagles. Based on the presence of the 12 active golden eagle nests recorded within five miles of the site (one within 0.4 miles) and recommended avoidance buffers for impacts to nesting golden eagles that range up to three miles (Richardson and Miller 1997; Pagel et al 2010), project effects on nesting golden eagles represent a potential impact. However, because the project site itself does not include suitable nesting habitat, there would be no loss of nesting habitat. Therefore, the referenced discussion has been revised as follows:

Direct Impacts to Golden Eagle. Direct impacts to golden eagles could include mortality or injury of individuals, as well as disruption of foraging and nesting behaviors and loss of foraging ~~and nesting~~ habitat...

Response 16.40

The commenter suggests that the conclusion under *Indirect Impacts to California Tiger Salamander* in Impact B-1 regarding indirect impacts is not supported, and recommends striking this impact entirely. The potential for long-term decline in population viability was included because there is no information on the long-term (20 years) effects of solar panels and ongoing operations and maintenance activity on CTS habitat within a project site. Therefore it is impossible to exclude the possibility that CTS that may occur within the identified suitable upland CTS habitat on the project site, and therefore could experience these indirect impacts in the future.

Response 16.41

The commenter remarks that the discussion of permanent impacts to CRLF within the SDAs (Impact B-1, *California Red-legged Frog*, fourth paragraph) is unclear on how habitat value would



remain after construction, and thus requires clarification. The fourth paragraph under *California Red-legged Frog* in Impact B-1 has been revised for clarification as follows:

Any permanent or temporary areas of impact within these polygons were identified, and acreages were calculated as impacts to California red-legged frog upland dispersal habitat. ~~However, those areas of the SDAs not permanently impacted (e.g., grassland habitat beneath the solar arrays) will be available for CRLF use after construction. Although considered permanently impacted for the purposes of analysis mitigation, grassland habitat beneath the solar arrays is expected to be available for CRLF use after construction.~~

Response 16.42

The commenter suggests that the DEIR conclusion regarding indirect impacts to California red-legged frog is not supported and recommends revising to include indirect impacts that include changes in water quality, sedimentation of aquatic habitats, and changes in predation pressure and prey populations. The *Indirect Impacts to California Red-legged Frog* discussion under Impact B-1 has been revised as follows to address the specific factors that could result in a potential decline in CRLF population viability on the project site:

Indirect Impacts to California Red-Legged Frog. Indirect impacts to CRLF could occur due to sedimentation of aquatic habitats or changes in water quality. Other indirect impacts may include changes to predation pressure or prey populations in upland dispersal habitat due to facility maintenance and management which may result in a potential for include the long-term decline in population viability within the project site over the life of the project.

Response 16.43

The commenter claims that the statement that CRLF breeding habitat would be degraded and lost is incorrect, because breeding habitat would not be affected. The comment is noted and the *Impact Significant for California Red-Legged Frog* discussion under Impact B-1 in the DEIR has been revised as follows:

Impact Significant for California Red-Legged Frog. Because of the regional rarity of this species, potential increased mortality of CRLF and degradation and loss of their ~~breeding and~~ non-breeding aquatic habitats and upland dispersal habitats would be considered *Class II, significant but mitigable.*

Response 16.44

The commenter suggests that the DEIR conclusion regarding indirect impacts to western pond turtle is not supported and recommends revising to include indirect impacts that include changes in water quality, sedimentation of aquatic habitats, and changes in predation pressure and prey populations. The *Indirect Impacts to Western Pond Turtle* discussion under Impact B-1 has been revised as follows to address the specific factors that could result in a potential decline in western pond turtle population viability on the project site:



Indirect Impacts to Western Pond Turtle. Indirect Impacts to western pond turtles could occur due to sedimentation of aquatic habitats or changes in water quality. Other indirect impacts may include changes to predation pressure or prey populations in upland dispersal habitat due to facility maintenance and management which may result in a potential for include long-term decline in population viability within the project site over the life of the project.

Response 16.45

The commenter remarks that San Joaquin coachwhip and coast horned lizard can also occur within the utility corridor. The first paragraph of the *Western Spadefoot, San Joaquin Coachwhip, and Coast Horned Lizard* discussion under Impact B-1 has been revised for this clarification as follows:

Western Spadefoot, San Joaquin Coachwhip, and Coast Horned Lizard. San Joaquin coachwhip has been observed in the project impact area, and western spadefoot and coast horned lizard have the potential to occur within the Solar Generating Facility Area, ~~and~~ along the Access Road and within the utility corridor.

Response 16.46

The commenter remarks that the conclusion regarding indirect impact of a potential long-term decline in population viability on the project site for western spadefoot, San Joaquin coachwhip, and coast horned lizard cannot be supported, and should be revised to address increased predation, lighting, non-native ant species, disruption of wetland hydrology, and water quality issues. The specific potential indirect impacts noted by the commenter are reasonable and would potentially result in a long-term decline in population viability on the project site. Therefore, the *Indirect Impacts to Western Spadefoot, San Joaquin Coachwhip, and Coast horned lizard* discussion in Impact B-1 has been revised as follows

Indirect Impacts to Western Spadefoot, San Joaquin Coachwhip, and Coast horned lizard. Indirect impacts to western spadefoot, San Joaquin coachwhip and coast horned lizard could potentially occur due to increased predation pressure, facilitated by the installation of structures that can be used as raptor perches and lighting that illuminates nocturnal species. Human activities could result in the introduction of non-native ant species that displace native ant species, which are the primary prey of coast horned lizards. Indirect impacts on western spadefoot could occur if surface flows are disrupted such that they affect wetland hydrology or ponding. Erosion and sedimentation from construction could affect the water quality of western spadefoot breeding pools. As a result there may be ~~include~~ a potential long-term decline in population viability of these species within the project site over the life of the project. ~~Increased predatory pressure due to the availability of addition raptor perches would also be an indirect impact to these species.~~

Response 16.47

The commenter states that the indirect impact to the long-term decline in population viability of vernal pool branchiopods is not supported. The commenter agrees with other indirect impacts



including changes in hydrology and water quality. The specific indirect impacts resulting from changes to hydrology and water quality could potentially result in long-term decline in population viability on the project site. Therefore, no changes to the DEIR have been made.

Response 16.48

The commenter contends that the requirement outlined in Mitigation Measure B-1(a) that require conservation lands contain verified extant populations is in conflict with other conditions of this measure and is not required by USFWS and CDFW guidance. The DEIR as written does not include conflicting conditions, but rather provides minimum standards and alternative methods for reaching those minimum standards to allow flexibility to conservation easement managers for the appropriate management and or enhancement of available mitigation lands. To clarify the requirements for special status species versus special status animals, Mitigation Measure B-1(a) has been revised as follows:

...Areas proposed for preservation and serving as compensatory mitigation for special status plant species impacts must contain verified extant populations of the special status plant species that would be impacted by the project. Areas proposed for preservation and serving as compensatory mitigation for special status wildlife species impacts must contain habitat value and function consistent with the conditions necessary to support viable populations of the special status species for which impacts are being mitigated (i.e. suitable vegetation communities, suitable breeding and nesting habitat and microhabitat conditions, including appropriate aquatic habitat for impacts to aquatic species or disturbances to aquatic habitat). Preservation lands must also be within known species ranges and known occurrences of local populations of the species for which impacts are being mitigated. Compensatory mitigation areas shall have a restrictive covenant prohibiting future development/disturbance and shall be managed in perpetuity to encourage persistence and enhancement of the preserved target species...

Response 16.49

The commenter states that Mitigation Measures B-1(a) and B-1(b) are redundant and proposes alternative language that allows the project proponent to provide the County with documentation that the administrative and stewardship fees have been paid and that the conservation easement holder has determined the amount paid is sufficient. The County requires assurance that the conditions of Mitigation Measure B-1(a) and B-1(b) have been fulfilled, and retains the responsibility to participate in determining the appropriate amount of the administrative and stewardship fees.

Response 16.50

The commenter notes that the standard wildlife agency timeframe to complete recording of a conservation easement is 18 months, and suggests that the timing cited in Mitigation Measure B-1(a) revised from 12 months to 18 months. The *Mitigation Timing* discussion of Mitigation Measure B-1(a) has been revised as follows:



Mitigation Timing: The applicant shall calculate the total acreages required to meet all compensatory mitigation obligations and submit these totals to the County prior to the issuance of grading permits. The applicant shall then obtain County approval of the location of mitigation lands, the holder of conservation easements, and the restrictions contained in the easement(s) created for the permanent protection of these lands. Documentation of recorded easement(s) shall be submitted to and approved by the County prior to the first of the project's final inspections, or within ~~12~~ 18 months after issuance of grading permits, whichever comes first. Verification of having met habitat mitigation requirements shall be reviewed and approved prior to final inspection.

Response 16.51

The commenter contends that the timing for calculation of impact acreages in Mitigation Measure B-1(e) requires clarification. To clarify the timing of acreage calculations in the context of a phased project, the *Mitigation Timing* discussion of Mitigation Measures B-1(e) of the DEIR has been revised as follows:

Mitigation Timing: Identification of the total number of plants and acreage for mitigation must be submitted to the county prior to the issuance of grading permits or prior to the issuance of the grading permit for each phase of the project, should the project be phased. All other timing shall be consistent with measure B-1(a).

Response 16.52

The commenter states the opinion that Mitigation Measures B-1(g) does not allow for modification of potential den buffers within 500 feet of active construction. The current text may therefore cause buffers to intrude into active construction zones. The commenter requests revisions to allow buffers to be reduced by the qualified biologist. This measure does not require a 500 foot buffer; rather, it requires a 100 foot buffer area, designated as an Environmentally Sensitive Area (ESA), be demarcated around any potential burrows that occur outside of the disturbance footprint but within 500 feet of an active construction zone. This measure does allow for access into the ESA with the express permission of the qualified biologist.

Response 16.53

The commenter notes that the timeframe for reporting to the USFWS and CDFW may differ from that specified in the federal and state incidental take permits. To ensure that the FEIR does not include language that is in contradiction to language that may be included in resource agency permits, Mitigation Measure B-1(i) has been revised as follows:

...All authorized reductions to restrictive buffer areas must be reported in writing to the USFWS and CDFW per the requirements of the federal and/or state take authorizations if specified, or within 24 hours of implementing the change if not specified in the take authorization(s).



Response 16.54

The commenter recommends clarifying the language and the timing of the procedures to minimize impacts on known SJKF dens in Mitigation Measure B-1(i) to be clear that it is applicable to all phases of project construction. To provide clarification on this matter, Mitigation Measure B-1(i) has been revised as follows:

- e) The fewest number of personnel and only equipment or vehicles essential to the work to be done will approach a den. Work will be completed, and personnel will leave the area, as quickly as possible.

All Project Phases

The applicant shall minimize impacts on known dens through the following procedures:

1. Protect in place if construction would not directly affect the known den on the project site as follows...

Response 16.55

The commenter recommends clarification on timing of preconstruction surveys and avoidance measures for SJKF in Mitigation Measure B-1(i). To clarify the timing and ensure that avoidance measures occur at the appropriate times relative to construction activity, the *Mitigation Timing* discussion of Mitigation Measure B-1(i) has been revised as follows:

Mitigation Timing: The applicant shall submit documentation to the County that either no occupied SJKF dens were recorded on the project site, or that appropriate avoidance measures have been implemented to ensure avoidance of occupied or active breeding dens prior to ~~issuance of grading permits~~ the start of active construction.

Response 16.56

The commenter notes that timing of the impact acreage calculation requires clarification to allow for phasing of project construction. To ensure mitigation timing is consistent with a phased project, the *Mitigation Timing* discussion of Mitigation Measure B-1(j) has been revised as follows:

Mitigation Timing: Identification of the total acreage for mitigation of San Joaquin kit fox must be submitted to the county prior to the issuance of grading permits or prior to the issuance of the grading permit for each phase of the project, should the project be phased. All other timing shall be consistent with measure B-1(a).

Response 16.57

The commenter recommends revisions to Mitigation Measure B-1(l) for the timing of preconstruction survey to be completed prior to ground disturbing activities rather than to issuance of grading permits. To ensure the correct timing of preconstruction surveys for burrowing



owl, the *Mitigation Timing* and *Monitoring* discussions of Mitigation Measure B-1(l) has been revised as follows:

Mitigation Timing: The applicant will contract for preconstruction burrowing owl surveys to be conducted prior to construction of the project and shall submit documentation to the County that surveys have been completed prior to the start of initial ground-disturbing activities.
Monitoring: The County shall ensure that applicant is in compliance with all burrowing owl impact avoidance and minimization measures the surveys are completed prior to issuing grading permits.

Response 16.58

The commenter remarks on Section 4.4.3.b, Mitigation Measure B-1(n), Compensatory Habitat Mitigation for Burrowing Owl: The compensatory mitigation specified in this measure should be revised to reflect the County's application of CDFW's guidance pursuant to the Staff Report on Burrowing Owl Mitigation (CDFW, 2012) and to set compensatory mitigation for all impacted project lands at a uniform 2:1 ratio. The required compensatory mitigation ratios were set to be consistent with mitigation ratios for other species, so as to allow for nested compensatory mitigation. Therefore, consistent with the ratios for kit fox compensatory mitigation, impacts are to be mitigated at a ratio of 3:1 for all permanent impacts areas not including the SDAs, and at a ratio of 2:1 for impacts within the SDAs.

Response 16.59

The commenter recommends revising Mitigation Measure B-1(q) for buffers around maternity roosts or hibernacula to provide greater construction flexibility and enhanced species protection . To allow for reasonable adjustments to avoidance buffers for cases in which 100 foot buffers may be in excess of the necessary minimum buffer distance, Mitigation Measure B-1(q) has been revised as follows:

A minimum 100-foot ESA avoidance buffer shall be demarcated by highly visible orange construction fencing around active maternity roosts. No construction equipment, vehicles, or personnel shall enter the ESA without clear permission from the qualified biologist.
Reduced avoidance buffers can be established through consultation with CDFW. ESA fencing shall be maintained in good condition for the duration of the maternity season.

Response 16.60

The commenter recommends revising the mitigation timing in Mitigation Measure B-1(q) to ensure adequate species protection. So as to ensure that preconstruction surveys are properly timed to coincide with actual construction activity, the *Mitigation Timing* discussion of Mitigation Measure B-1(q) has been revised as follows:

Mitigation Timing: The applicant shall submit documentation to the County that either no special status bats were recorded on the project site, or that appropriate avoidance measures have been implemented to



ensure avoidance of impacts to special status bats prior to ~~issuance of grading permits~~ the start of construction activity.

Response 16.61

The commenter remarks on Section 4.4.3.b, Mitigation Measure B-1(r), Preconstruction Surveys for Raptors and Other Special Status Bird Species, first paragraph, noting that the measure requires nest survey not less than 30 days prior to construction when this should read not “more” than 30 days prior to construction. This was a clerical error in the DEIR; the *Mitigation Timing* discussion of Mitigation Measure B-1(r) has therefore been revised as follows:

Preconstruction Surveys for Raptors and Other Special Status Bird Species. Not ~~less~~more than 30 days prior to initiation of construction activities (incl. mobilization, staging and ESA fence installation) during the breeding season (1 February to 15 September), a qualified biologist shall conduct preconstruction surveys for raptors and MBTA/state regulated birds.

Response 16.62

The commenter remarks on Section 4.4.3.b, Mitigation Measure B-1(r), Preconstruction Surveys for Raptors and Other Special Status Bird Species, noting that the criteria for reducing golden eagle buffers has already been provided and as such, the USFWS consultation requirement is unnecessary. The general conditions to be considered when establishing golden eagle nest buffers have been specified in the DEIR, but no specific criteria as to level of disturbance, activity level, noise intensity, or duration of activity, and no specific details on how existing conditions would be applied to the size of the buffer have been specifically outlined in the DEIR; therefore, consultation with USFWS on buffers for specific nests is a reasonable expectation. If eagle nest avoidance buffers are identified within the applicant proposed Bird and Bat Conservation Strategy (BBCS; see comment 16.65) to be developed through consultation with USFWS, these would represent USFWS authorized buffers and no additional consultation would be required. The comment is noted with no revisions to the DEIR.

Response 16.63

The commenter recommends revisions in Mitigation Measure B-1(r) to the mitigation timing for preconstruction surveys for raptors and other special status birds. To ensure that the timing of preconstruction surveys is appropriate to address potential impacts from construction activity, the *Mitigation Timing* discussion of Mitigation Measure B-1(r) has been revised as follows:

Mitigation Timing: The applicant shall submit documentation to the County that either no raptors or other special status birds were recorded on the project site, or that appropriate avoidance measures have been implemented to ensure avoidance of impacts to raptors and other special status birds prior to ~~issuance of grading permits~~ the start of construction activity.



Response 16.64

The commenter recommends revising the timing for the incorporation of APLIC guidelines so that it is tied to the project design plans that incorporate the guidelines and not specifically to grading permits. To ensure that APLIC guidelines are correctly and appropriately incorporated into the applicable design plans, the *Mitigation Timing* discussion of Mitigation Measure B-1(s) has been revised as follows:

Mitigation Timing: The applicant shall submitted documentation to the County, that avian impact avoidance and minimization features have been incorporated into the project design prior to issuance of ~~grading~~ construction or electrical permits that incorporate the guidelines permits.

Response 16.65

The commenter notes that in response to feedback received from stakeholders regarding avian mortality, the applicant has incorporated a new Applicant Proposed Measure to monitor avian use of the site, conduct post-construction avian mortality monitoring and identify conservation measures to minimize impacts. These efforts would be memorialized in a Bird and Bat Conservation Strategy (BBCS) prepared in collaboration with USFWS and would include an Avian Mortality Monitoring Program (AMMP) to monitor operational effects of the project on avian species. The development of a BBCS would further reduce potential operational impacts to avian species by providing additional data and additional conservation measures in response to that data. The DEIR has been revised to include information on the applicant proposed BBCS, including the last paragraph under the *Raptors and Other Special Status Birds* discussion under Impact B-1 which has been revised as follows:

Solar facilities also present risk for bird collisions with solar panels. Birds migrating at night or moving between the perennial and ephemeral streams on the project site or the adjacent stock ponds would also be at an increased risk of collision with the solar panels as the panels might be mistaken for open sky or water. Based on the known distribution of the species in the project area, observations made during surveys, and fatality results emerging from other solar sites in California (Western EcoSystems Technology, Inc. 2014), some collision mortality is anticipated to occur. Applicant Proposed Measure (APM) 10 is proposed to monitor avian use of the site, conduct post-construction avian mortality monitoring, and identify conservation measures to minimize impacts. These efforts would be memorialized in a Bird and Bat Conservation Strategy (BBCS) prepared in collaboration with USFWS and would include an Avian Mortality Monitoring Program (AMMP) to monitor operational effects of the project on avian species. The development of a BBCS would further reduce potential operational impacts to avian species by providing additional data and additional conservation measures in response to that data.

Response 16.66

The commenter recommends revisions to the mitigation timing in Mitigation Measure B-1(t) to ensure surveys are correctly timed to with construction activity. To ensure that surveys are



correctly timed to coincide with construction activity, the *Mitigation Timing* discussion of Mitigation Measure B-1(t) has been revised as follows:

Mitigation Timing: The applicant shall submit documentation to the County that no aquatic special status species were recorded on the project site, or that appropriate impact avoidance measures have been implemented to ensure avoidance of aquatic special status species prior to ~~issuance of grading permits~~ the start of construction activity.

Response 16.67

The commenter recommends revisions to the mitigation timing in Mitigation Measure B-1(u), so that preconstruction surveys are tied to the commencement of construction rather than the issuance of permits. To ensure the correct timing for preconstruction surveys, the *Mitigation Timing* discussion of Mitigation Measure B-1(u) has been revised as follows:

Mitigation Timing: The applicant shall submit preconstruction survey documentation to the County that no western spadefoot were recorded on the project site, or that appropriate avoidance measures have been implemented to ensure avoidance of impacts to western spadefoot prior to ~~issuance of grading permits~~ the start of construction activity.

Response 16.68

The commenter notes an inconsistency on the authority of CDFW over CRLF. The implication that CDFW must be consulted regarding CRLF is a clerical error and Mitigation Measure B-1(w) has been revised as follows:

B-1(w) California Tiger Salamander and California Red-Legged Frog Relocation Sites. Prior to the initiation of any other protective measures, a qualified biologist (i.e., biologist approved by USFWS and/or CDFW to translocate CTS and CRLF) shall, in consultation with USFWS and/or CDFW as applicable, identify appropriate relocation sites for any adult, juvenile, and larval CTS and CRLF that may be observed during the pre-construction survey or monitoring activities described below and need to be moved from within the limits of direct impact disturbance. Relocation or other take (e.g. entrapment) of CTS and CRLF can only be conducted by an authorized biologist and the project must have been issued the requisite take authorizations from CDFW and/or USFWS as applicable before any relocation activity can commence.

Mitigation Timing: The applicant shall submit to the County documentation that CDFW and/or USFWS approved relocation sites for CTS and CRLF have been identified prior to issuance of grading permits. **Monitoring:** The County shall ensure that CDFW- and USFWS-approved relocation sites have been identified by the applicant.



Response 16.69

The commenter contends there are inaccuracies in Mitigation Measure B-1(y) regarding timing and sequence of required conditions. This represents a misunderstanding on the part of the commenter regarding the distinction between preconstruction surveys and compliance monitoring. One paragraph is referring to required preconstruction survey, while the following paragraph is referring to required construction monitoring, and they are not in conflict with one another. The comment is noted with no changes to the DEIR.

Response 16.70

The commenter recommends revisions to the timing of preconstruction surveys to be tied to the commencement of construction rather than the issuance of permits. To ensure proper timing for preconstruction surveys and the *Mitigation Timing* discussion of Mitigation Measure B-1(y) has been revised as follows:

Mitigation Timing: The applicant shall submit documentation to the County that no aquatic special status species were recorded on the project site, or that appropriate impact avoidance measures have been implemented to ensure avoidance of aquatic special status species prior to ~~issuance of grading permits~~ the start of construction activity.

Response 16.71

The commenter recommends revisions to Mitigation Measure B-1(z) to allow for phasing of construction of the project. To ensure that the measures allows for project phasing, the *Mitigation Timing* discussion of Mitigation Measure B-1(z) has been revised as follows:

Mitigation Timing: Identification of the total acreage for mitigation for California red-legged frog must be submitted to the county prior to the issuance of grading permits, or prior to the issuance of the grading permit for each phase of the project, should the project be phased. All other timing shall be consistent with measure B-1(a).

Response 16.72

The commenter remarks on Mitigation Measure B-1(aa) regarding CTS Construction Barriers in the utility corridor. The exclusion of the utility corridor from this section was a clerical error; therefore, the second paragraph of Mitigation Measure B-1(aa) has been revised as follows:

Within 0.35 mile of the identified suitable breeding habitat of the project site, where installation of a silt fence is not feasible, ground-disturbing construction activities shall be limited to the non-breeding season to the extent practicable, and nighttime construction activities shall be minimized during the breeding season. In particular, to minimize impacts to California tiger salamanders that are dispersing to and from breeding sites during the breeding season (October through March),



ground-disturbing construction activities along the access road, utility corridor, and transmission line shall be limited to the non-breeding season, to the extent practicable...

Response 16.73

The commenter identifies language in Mitigation Measure B-1(bb) requiring submission of documentation of daily pre-activity surveys during the winter and spring breeding season during construction in reports, per Mitigation Measure B-1(u). The reference to Mitigation Measure B-1(u) was a clerical error and the DEIR should reference Mitigation Measure B-1(ee) at this location. The *Mitigation Timing* discussion of Mitigation Measure B-1(bb) has therefore been revised as follows:

Mitigation Timing: The applicant shall include details on special status animal species general avoidance measures and construction BMPs in biological monitoring status reports that are to be submitted to the County as outlined in B-1(~~uee~~).

Response 16.74

The commenter recommends revisions to mitigation timing in Mitigation Measure B-1(cc) to provide for phasing of construction of the project. To ensure mitigation accounts for possible phasing of the project the *Mitigation Timing* discussion of Mitigation Measure B-1(cc) has been revised as follows:

Mitigation Timing: Identification of the total acreage for mitigation for California tiger salamander must be submitted to the county prior to the issuance of grading permits or prior to the issuance of the grading permit for each phase of the project, should the project be phased. All other timing shall be consistent with measure B-1(a).

Response 16.75

The commenter remarks on Section 4.4.3.b., Mitigation Measure B-1(ee), Construction Biological Monitoring, Mitigation Timing, noting that the current text calls for daily, monthly, and annual reporting, and that this is overly burdensome and inconsistent with the frequency of biological monitoring reporting at other projects in Monterey County and at other project sites in the region. The DEIR does not require daily reporting; rather, it specifies that daily monitoring activity shall be reported to the County through monthly and annual reports. For clarification, the *Mitigation Timing* discussion of Mitigation Measure B-1(ee) has been revised as follows:

Mitigation Timing: The applicant shall submit documentation to the County demonstrating that the applicant has contracted qualified biologists to conduct biological monitoring and that these biologists have been approved by CDFW and USFWS (as required) prior to issuance of a grading permit. The applicant shall also report results of daily biological monitoring activity to the County (through the Environmental Compliance Manager) on a monthly and annual basis



~~through the preparation and submission of and prepare and submit monthly summary monitoring reports, and annual monitoring reports to the County. During construction, the annual written report shall describe the status of project construction, as well as the compliance and current implementation status of construction-related biological mitigation measures and general biological measures. The report shall be submitted to the County no later than 15 February of the following year.~~

Response 16.76

The commenter recommends the removal of Mitigation Measure B-1(ff) Item 19 if revisions to Mitigation Measure B-1(ee) so warrant. As a result of revisions to Mitigation Measure B-1(ee) regarding required reporting and timing, Item 19 of Mitigation Measure B-1(ff) is now redundant and has been deleted from the DEIR as follows:

- ~~1. During construction, an annual written report shall be prepared describing the status of Project construction, as well as the compliance and current implementation status of construction-related biological mitigation measures and general biological measures. The report shall be submitted to the County no later than 15 February the following year.~~

Response 16.77

The commenter notes an incorrect cross-reference in Mitigation Measure B-1(ff). The reference to Mitigation Measure B-1(u) was a clerical error, which has been corrected as follows:

Mitigation Timing: The applicant shall include details on special status animal species general avoidance measures and construction BMPs in biological monitoring status reports that are to be submitted to the County as outlined in B-1(~~uee~~).

Response 16.78

The commenter identifies typographical errors in Impact B-2 related to the temporary impact value for mixed oak woodlands and a table reference that should refer to Table 4.4-8. Table number references throughout the EIR have been checked and corrected as appropriate. The typographical error has been corrected in the *Mixed Oak Woodlands: Temporary Impacts* discussion under Impact B-2 as follows:

...However, temporary impacts to up to 0.31 acres of oak woodlands could occur as a result of activities such as construction access by personnel or equipment, trampling of herbaceous vegetation, materials laydown, or utility trenching. No oak woodlands occur within the Access Road or Utility Corridor impact areas (Table 4.4-~~78~~).



Response 16.79

The commenter recommends revising Impact B-2 to be consistent with revised plans for a clear span bridge that is a change in crossing types for Cottonwood Creek as was outlined in the November 2013 site plan updates. It was a clerical error that the revised creek crossing design discussed in the Addendum to Biotic Resources Report and Biological Resources Impact Analysis (HTH 2014e; DEIR Appendix E.13) did not get incorporated into the DEIR; therefore, the *Perennial Stream Impacts* discussion under Impact B-2 has been revised as follows:

Perennial Stream Impacts. A new double box culvert clear-span bridge is proposed for a crossing of Cottonwood Creek (a perennial stream that supports perennial marsh wetland vegetation [Figure 4.4-2b]) within the project site. Construction of this culvert bridge, which would require rock slope protection on streambanks associated with bridge abutments, would constitute a permanent impact to the stream in this location. However, due to the clear-span design, the stream channel bottom would remain a native mud-bottomed habitat. Temporary impacts would be caused by the access and activities, including localized dewatering, required to construct this crossing...

Response 16.80

The commenter suggests that flow capacity of channel crossings listed in Impact B-2 should be clarified because structures needed to handle very large stormflows in this area would cause unnecessary impacts to aquatic resources and would have more capacity than what the current channels provide. The commenter suggests revised language stating that pipe culverts must be large enough to handle storm flows to at least existing channel capacity. In response to this suggestion, the *Perennial Stream Impacts* discussion under Impact B-2 has been clarified as follows:

...In these areas, pipe culverts large enough to handle storm flows to at least existing channel capacity and avoid scour, or channel downcutting, would be installed, along with associated erosion control measures, such as rock weirs and cross vanes, where necessary. Permanent impacts related to these improvements would be confined to the area affected by the wider road and culvert, as well as any erosion control improvements such as weirs. Temporary impacts would be restricted to the areas where construction access is needed to install the improvements.

Response 16.81

The commenter states that the requirement that the Project Vegetation and Invasive Species Management Plan (PVIMP) required by Mitigation Measure B-2(c) be submitted to USFWS and CDFW is not warranted, as neither agency has approval authority over the PVIMP. However, vegetation management activities described by the applicant include possible herbicide use, grazing, and mowing, as well as management activities to control spread of non-native snails, and these activities could require work in areas that support SJKF. Because SJKF are both state and federally listed, vegetation and invasive species management activities must be compatible with CDFW and USFWS requirements for protection of SJKF. The measure states that copies would be provided to CDFW and USFWS for review. This review is intended to ensure management activities are not in conflict. The County is identified as the approving authority for this measure.



The commenter also notes that earlier in the measure, submittal is specified to the County only. In response to this comment, the fourth paragraph of Mitigation Measure B-2(c) has been revised for consistency, as follows:

The PVIMP shall be submitted to the County, CDFW, and USFWS prior to the notice to proceed, and shall address the entire project site. This submittal shall further describe the process by which the PVIMP shall be implemented (e.g., the entity responsible for implementing it, funding mechanisms, and reporting procedures). The PVIMP shall include, but is not limited to, the following...

Response 16.82

The commenter recommends revisions to Mitigation Measure B-2(f) based on recent hydrologic analysis of the site that determined designing crossings for even a five-year event would, in many cases, result in unnecessary impacts to aquatic resources, because either the streams would need to be rechannelized or very large bridges or causeways would be needed. In accordance with the *Preliminary Drainage Analysis Addendum* (Wallace Group, February 2014) and *California Flats Solar Project 404-b1 Drainage Crossings* (Wallace Group, March 2014), the following revision has been made to Mitigation Measure B-2(f) in Section 4.4, *Biological Resources*:

B-2(f) Stream Channel Avoidance and Minimization. To prevent high-velocity water flow from causing bank downcutting at downstream locations, any improvements related to road realignment, widening, or the ability of the road to convey heavy equipment for construction shall be designed to ~~handle heavy storm flows (up to the 25-year flood event or more), such that undesirable velocities and channel destabilization downstream of the crossing shall be avoided~~ minimize alterations to natural flow patterns and capacity, consistent with the design-level drainage analysis.

Also in response to this revision, the following has been added to Section 8.0, *References and Preparers*:

Wallace Group, California Flats Solar Project, 404-1b Drainage Crossings, March 28, 2014.

Response 16.83

The commenter recommends revisions to Mitigation Measure B-2(f) to specify that the box culvert is no longer part of the project design and to identify use of a new clear-span bridge over Cottonwood Creek. The inclusion of the box culvert was a clerical error, and to ensure consistency with the change in project design, the fourth paragraph of Mitigation Measure B-2(f) has been revised as follows:

A single crossing, ~~including a new double box culvert or free~~ clear-span bridge, shall be installed ~~in~~ over Cottonwood Creek...



Response 16.84

The commenter suggests removing the requirement that the frac-out plan required by Mitigation Measure B-2(g) be submitted to CDFW and USACE. The inclusion of USACE in this measure was an oversight. Additional language has been added to the Impact B-2 *Riparian Habitat and Streams Temporary Impacts* as follows:

If directional drilling is included in project construction activity, the applicant would be required to acquire a CDFW Streambed Alteration Agreement (SAA) for potential impacts to jurisdictional features in the event of a frac-out, and conditions of the SAA would be designed to address those potential impacts.

Revisions to the *Mitigation Timing* section of Mitigation Measure B-2(g) have also been made to clarify that review of frac-out plans by CDFW would be in conjunction with the LSAA approval process, as follows:

Mitigation Timing. The Frac-out Plan shall be submitted by the applicant to the County, ~~CDFW, and USACE and approved by the County~~ for approval prior to issuance of grading permits.

Response 16.85

The commenter recommends clarification to Mitigation Measure B-4(b) on the timing requirements for submitting wildlife -friendly fence design components of the HMMP. To clarify the appropriate timing for pronghorn-friendly fence design, and the following clarification has been made to the *Mitigation Timing* section of Mitigation Measure B-4(b):

Mitigation Timing: The applicant shall submit documentation that to the County and CDFW that pronghorn-friendly fence design has been incorporated into the HMMP ~~prior to issuance of a grading permit~~ concurrently with submittal of the HMMP as noted in Measure B-1(b) (prior to the first of the project's final inspections, or within 12 months after issuance of grading permits, whichever comes first).

Response 16.86

The commenter states that the cumulative impact analysis in Section 4.4, *Biological Resources*, incorrectly states that the project could contribute to cumulative impacts to blunt-nosed leopard lizard. This error in the fourth paragraph of Section 4.4.3(c) (Cumulative Impacts) has been revised as follows:

Proposed solar development within the Carizzo Plain area combined with other solar development in the region (including the proposed project) does have the potential to result in cumulative impacts to sensitive species, especially high risk species such as the San Joaquin kit fox ~~and blunt-nosed leopard lizard~~, particularly if suitable mitigation were not employed to offset and mitigate potential impacts...



Response 16.87

The commenter states the opinion that no cultural resource impacts would occur as a result of decommissioning. Although it is unlikely that decommissioning activities would disturb known resources, given the same area of disturbance as construction, such activities would still have the potential to disturb resources not impacted by construction. Specifically, resources that required avoidance measures during construction would require avoidance measures during decommissioning to ensure impacts do not occur. Therefore, mitigation measures outlined in Section 4.5, *Cultural and Paleontological Resources*, would still be required. Specifically, the exclusion zone marking and monitoring of NRHP/CRHR-eligible sites as described in CR-1(a) would be required.

Response 16.88

The commenter argues that Mitigation Measure CR-1(a) unnecessarily provides the County with authority to determine the feasibility of avoiding impacts to known cultural resources. Mitigation Measure CR-1(a) has been revised as follows:

- CR-1(a) Archaeological Site Avoidance.** Wherever feasible, direct impacts on NRHP/CRHR-eligible archaeological sites shall be avoided. Avoidance shall be accomplished by preventing any direct ground disturbance of the resource. If impacts to all or any of these resources cannot be avoided, as determined by the applicant with concurrence from RMA – Planning Department, the boundaries of the NRHP/CRHR-eligible sites shall be marked in the field by a Registered Professional Archaeologist prior to ground disturbance with exclusionary fencing, lath, flagging tape, or some other combination of material that is highly visible, durable, and which construction and management personnel can recognize as marking an exclusion zone where no earth disturbance or other activity shall occur. ~~If avoidance of any direct disturbance is determined feasible by RMA—Planning based on the sensitivity of the resource relative to the severity of impact, the boundaries of the NRHP/CRHR-eligible sites shall be marked in the field by a Registered Professional Archaeologist prior to ground disturbance with exclusionary fencing, lath, flagging tape, or some other combination of material that is highly visible, durable, and which construction and management personnel can recognize as marking an exclusion zone where no earth disturbance or other activity shall occur.~~ Exclusion zones shall be inspected weekly by an archaeological monitor or other environmental inspector to ensure that they are being honored, remain effective, and in place. If complete avoidance is not feasible, Mitigation Measures CR-1(b) or CR-1(c) shall apply.

The above revisions have also been made to Table 4.5-1 (Impact and Mitigation Summary: Cultural Resources) and Table ES-1 in the *Executive Summary*.



Response 16.89

The commenter argues that no cultural resource impacts would occur as a result of decommissioning. Refer to response 16.87. Although it is unlikely that decommissioning activities would disturb known resources, given the same area of disturbance as construction, such activities would still have the potential to disturb resources not impacted by construction.

Response 16.90

The commenter argues that no cultural resource impacts would occur as a result of decommissioning. Refer to response 16.87. Although it is unlikely that decommissioning activities would disturb known resources, given the same area of disturbance as construction, such activities would still have the potential to disturb resources not impacted by construction.

Response 16.91

The commenter argues that no cultural resource impacts would occur as a result of decommissioning. Refer to response 16.87. Although it is unlikely that decommissioning activities would disturb known resources, given the same area of disturbance as construction, such activities would still have the potential to disturb resources not impacted by construction.

Response 16.92

The commenter argues that no cultural resource impacts would occur as a result of decommissioning. Refer to response 16.87. Although it is unlikely that decommissioning activities would disturb known resources, given the same area of disturbance as construction, such activities would still have the potential to disturb resources not impacted by construction.

Response 16.93

The commenter argues that no cultural resource impacts would occur as a result of decommissioning. Refer to response 16.87. Although it is unlikely that decommissioning activities would disturb known resources, given the same area of disturbance as construction, such activities would still have the potential to disturb resources not impacted by construction.

Response 16.94

The commenter requests clarification regarding project site terminology. Accordingly, the following revision has been made to Impact GEO-2 in Table 4.6-1 in Section 4.6, *Geology/Soils*:

Impact GEO-2 The solar development generating facility area is relatively flat and is subject to low levels of landslide potential...

The same revision has been made in the impact statement in Section 4.6.3(b) (Project Impacts and Mitigation Measures), as well as within Table ES-1 of the *Executive Summary*.



Response 16.95

The commenter suggests that a reference to the NPDES program in Section 4.6, *Geology/Soils*, should be revised to clarify that it is the construction stormwater program. In accordance with the commenter's suggestion, the following clarifying revision has been made to Impact GEO-3 in Table 4.6-1:

Impact GEO-3 Project construction, operation, and decommissioning could result in soil erosion or loss of topsoil. However, compliance with the NPDES construction stormwater program and implementation of measures promoting infiltration, as identified in a final, design-level drainage analysis, would minimize erosion. Impacts would be Class III, less than significant. [Threshold 2]

The same revision has been made in the impact statement in Section 4.6.3(b) (Project Impacts and Mitigation Measures), as well as within Table ES-1 of the *Executive Summary*.

The commenter additionally suggests revisions to the mitigation discussion for this impact to clarify that SWPPP requirements are for the construction phase, and to acknowledge that APMs would be implemented to reduce impacts. Consistent with these suggestions, the following revision has been made to the mitigation discussion in Table 4.6-1:

In addition, compliance with recommendations in a required final, design-level drainage analysis, and compliance with the project's construction SWPPP, as described in Section 4.9, *Hydrology and Water Quality*, as well as proposed project design features (i.e., APMs), would reduce erosion impacts to a less than significant level. No mitigation is required.

The same revision has been made in the mitigation discussion for Impact GEO-3 in Section 4.6.3(b) (Project Impacts and Mitigation Measures), as well as within Table ES-1 of the *Executive Summary*.

Response 16.96

The commenter requests clarification regarding project site terminology. Accordingly, the following revision has been made to the last paragraph on page 4.6-3:

The ~~solar development area~~ project site is located within the U.S. Geological Survey (USGS) Cholame Valley and Dark Hole quadrangles.

Response 16.97

The commenter requests clarification regarding project site terminology. Accordingly, the following revision has been made to the *San Andreas Fault* discussion in Section 4.6.2(b) (Geologic Hazards) in Section 4.6, *Geology/Soils*:

The proposed approximately 155-acre utility corridor would cross the San Andreas Fault, while the proposed solar ~~development~~ generating facility area would be located approximately two miles northeast of the fault trace.



Response 16.98

The commenter suggests adding a statement to the setting in Section 4.6, *Geology/Soils*, to clarify that the proposed improvements within the utility corridor would be limited. This statement is more appropriate for the impact analysis, rather than the setting, which is intended to describe the San Andreas Fault and not assess impacts of the project. Impact GEO-1 assesses the effects of the San Andreas Fault and other nearby faults on the project, and the discussion appropriately characterizes the level of development proposed. Therefore, no revisions will be made in response to this comment.

Response 16.99

The commenter requests clarification regarding project site terminology. Accordingly, the following revision has been made to the *Gold Hill Thrust Fault* discussion in Section 4.6.2(b) (Geologic Hazards) in Section 4.6, *Geology/Soils*:

This fault is located approximately 0.25 miles southwest of the solar ~~development~~ generating facility area and would cross the proposed utility corridor.

Response 16.100

The commenter requests clarification regarding project site terminology. Accordingly, the following revision has been made to the *Jack Ranch Fault* discussion in Section 4.6.2(b) (Geologic Hazards) in Section 4.6, *Geology/Soils*:

This fault is located approximately 1.0 mile southwest of the solar ~~development~~ generating facility area and would cross the proposed utility corridor.

Response 16.101

The commenter requests clarification regarding project site terminology. Accordingly, the following revision has been made to the *State* discussion in Section 4.6.2(c) (Regulatory Setting) in Section 4.6, *Geology/Soils*:

The solar ~~development~~ generating facility area is located in a “low” liquefaction area, while portions of the proposed utility corridor and access road are located in a “moderate” liquefaction area [refer to Section 4.6(b) (*Land Subsidence and Liquefaction*)]. However, the entire project area is located in a “low” landslide hazard area according to Monterey County resource maps [refer to Section 4.6(b) (*Landslides*)].

Response 16.102

The commenter requests clarification regarding project site terminology. In addition, the commenter recommends minor wording changes to further clarify Impact GEO-1. Consistent with these recommendations, the following revisions have been made to the first paragraph under Impact GEO-1 in Section 4.6, *Geology/Soils*:



The solar ~~development~~ generating facility area is located in a seismically active region and could be subject to fault rupture and strong seismic groundshaking during the project's design lifetime (anticipated to be 30 to 40 years). As shown in Figure 4.6-1, the proposed utility corridor would cross three fault lines, including the active San Andreas Fault and two inactive faults. It is thought that this particular section of the San Andreas Fault is likely to have a major earthquake in the next 30 years (2007 Working Group on California Earthquake Probabilities, 2008). ~~As such~~ The proposed project, due to its proximity to existing faults, the site is likely to experience significant surface rupture and groundshaking activity as a result of seismic activity along the San Andreas Fault during the life of the project. The proposed project would include the construction of PV modules, electrical transformers and other equipment, a transmission line, two substations, a switching station, security fencing, internal access roads, and an operations and maintenance (O&M) building, in addition to the utility corridor (which crosses a portion of that would cross the San Andreas Fault trace).

Response 16.103

The commenter requests clarification regarding project site terminology. Accordingly, the following revision has been made to the second paragraph under Impact GEO-1 in Section 4.6, *Geology/Soils*:

Furthermore, the solar ~~development~~ generating facility area is located in an area mapped as having a low liquefaction potential, according to Exhibit 4.4.3 in the *Monterey County General Plan*.

Response 16.104

The commenter requests clarification regarding project site terminology. This change was made in response to comment 16.94.

Response 16.105

The commenter requests clarification regarding project site terminology. This change was made in response to comment 16.95.

Response 16.106

The commenter requests clarification regarding project site terminology. Accordingly, the following revision has been made to the second paragraph under Impact GEO-3 in Section 4.6, *Geology/Soils*:

The operation of the project could also result in localized increases in erosion due to the introduction of new physical elements and impervious surfaces on the solar ~~development~~ generating facility area.



Response 16.107

The commenter suggests text edits to clarify that SWPPP requirements would be implemented during the construction phase of the project. To clarify this point, the following revision has been made to the fourth paragraph under Impact GEO-3 in Section 4.6, *Geology/Soils*:

Implementation of a NPDES-compliant construction Stormwater Pollution Prevention Plan (SWPPP), as required by the Clean Water Act...

Response 16.108

The commenter points out that the DEIR does not acknowledge that the project includes APMs to address the potential environmental effects associated with project decommissioning. In accordance with the commenter's suggestion, the following text has been added to the fifth paragraph under Impact GEO-3. The revision below has also been made to remove an erroneous statement suggesting that mitigation is required to reduce Impact GEO-3. This impact is Class III, *less than significant*, and no mitigation is required.

~~However, mitigation is required to reduce erosion impacts to a less than significant level.~~ As described in Section 2.0, Project Description, the project includes APM-1 to ensure that potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.

Response 16.109

The commenter suggests revisions to the mitigation discussion for Impact GEO-3 to clarify that SWPPP requirements are for the construction phase, and to acknowledge that APMs would be implemented to reduce impacts. This revision was made in response to comment 16.95.

Response 16.110

The commenter suggests the addition of language to Section 4.7.3(a) (Methodology and Significance Thresholds) of Section 4.7, *Greenhouse Gas Emissions/Climate Change*, to indicate that the project includes APM-1 to address the potential environmental effects associated with project decommissioning. The discussion in question is intended to present the methodology for the analysis of impacts from decommissioning. The commenter-suggested language would more appropriately be located in the impact analysis. Therefore, the following modification has instead been made to the last paragraph under Impact GHG-1:

However, based on current decommissioning practices, as a reasonable-worst case, GHG emissions generated during future decommissioning would be similar to GHG emissions generated during the construction phase of the proposed project. Therefore, the potential to add approximately 229 MT CO₂E per year during decommissioning would result in a slight decrease to the overall GHG emissions reduction benefit attributable to the proposed project. It should also be noted that, as described in Section 2.0, Project Description, the project includes APM-1 to ensure that potential future



environmental effects associated with project decommissioning – including GHG emissions – would be addressed at the time decommissioning is proposed consistent with regulations in effect at the time. Because the solar energy produced by the proposed project would off-set the GHG emissions generated by the facility, the project would result in a beneficial impact on GHG emissions and climate change.

Response 16.111

The commenter states that a parenthetical reference in the Impact GHG-1 (“42 pounds of CO₂ per MWh”) is incorrect, and suggests a revision based on the applicable data source (Sinha, P., Schneider, M., Dailey, S., Jepson, C., and M. de Wild-Scholten 2013). In response to this comment, the *Operational GHG Analysis* discussion in Impact GHG-1 of the DEIR has been revised as follows:

Operational GHG Analysis. The project would require a negligible amount of energy for security and monitoring systems during non-daylight hours. The project would not result in a substantial amount of mobile source GHG emissions, as the project would require a minimal amount of employees traveling to and from the site. In addition to these new sources of emissions, the project would introduce a non-fossil fuel-based energy source, which would have the indirect effect of displacing emissions otherwise occurring at natural gas and coal-fired power plants.³ Based on the CCAR emissions factors (630 pounds of CO₂ per MWh minus 42 36 pounds of CO₂ per MWh to account for the life cycle CO₂ emissions for cadmium telluride [CdTe]) from fossil-fuel based power plants, the project would offset approximately 202,513 MT CO₂E emissions annually.

Response 16.112

In response to the concerns of adjacent property owners that the heat absorbed by project components, such as PV modules, would increase local ambient temperatures, the commenter requests that the Final EIR evaluate this potential impact. As a reference, the commenter notes interim results from a 2010 study of heat island effects at the Sarnia Solar Power Plant, an 80 MW PV facility in Ontario, Canada, that was constructed with First Solar technology. Section 4.7, *Greenhouse Gas Emissions/Climate Change*, has been updated as follows to discuss the potential for local climate change due to radiant heat from solar panels and the results of the Sarnia study:

Property owners adjacent to the project site also have raised concerns about the potential of PV panels to cause local climate change by emitting radiant heat and raising the ambient temperature of surrounding areas. It should be noted that PV arrays are designed to maximize the absorption of solar radiation and its conversion to electricity and to minimize the loss of solar energy as heat to the atmosphere (Massachusetts Department of Energy Resources, et al., 2012).

³ MBUAPCD staff stated that they did not believe that the project would directly offset emissions in the North Central Coast Air Basin (NCCAB), but that it could potentially offset emissions on a statewide level as older fossil fuel energy facilities are taken offline, including the Morro Bay facility, and that the project would provide a renewable source of energy production that would otherwise be provided by new fossil fuel-fired facilities (California Flats Solar Project Air Quality and Greenhouse Gas Assessment, August 2013).



Furthermore, because solar panels are thin and light, they do not store a large amount of heat.

Although scientific research on this topic is limited, researchers at Columbia University and the Brookhaven National Laboratory have conducted detailed three-dimensional simulations of the effects of a large-scale solar power plant on the local microclimate (Fthenakis and Yu, n.d.). Using weather data provided by First Solar from the 80 MW Sarnia Solar Power Plant in Ontario, Canada, the simulations showed that mean annual air temperatures in the center of a PV array, at a height of 2.5 meters, can reach up to 1.9 degrees Celsius above the ambient temperature; however, this thermal energy was found to completely dissipate at heights of 5 to 18 meters. Heat produced by the solar array also was found to dissipate with distance from the solar plant, with air temperatures within 0.3 degrees Celsius of the ambient temperature approximately 300 meters away from the facility's perimeter. Moreover, an analysis of 18 months of data showed that an increase in ambient temperature of surrounding areas was unlikely due to cooling of the solar array at night.

The concerns of adjacent property owners about microclimate effects also might arise from recent reports of intensely focused solar rays scorching birds at the Ivanpah Solar Electric Generation System in the Mojave Desert. It should be clarified that the Ivanpah solar plant uses mirrors to concentrate and focus solar radiation, which can generate substantial amounts of heat above the facility. The proposed project would not use such technology, and the solar modules would be non-reflective, thus minimizing potential off-site glare.

Consistent with the above revision, the following text has been added to Section 4.14.7 (Greenhouse Gas Emissions/Climate Change) in Section 4.14, *Effects Found Not to Be Significant*, to note that radiant heat from the proposed solar facility is expected to have a less than significant impact on the local climate:

In addition, the proposed project would have a less than significant impact on the local climate. Based on the available research discussed in Section 4.7, *Greenhouse Gas Emission/Climate Change*, utility-scale PV arrays do not substantially increase ambient temperatures on adjacent sites. Thus, there will be no further discussion herein of the radiant heat effect of solar facilities.

In addition, the following references have been added to Section 8.0, *References and Preparers*:

First Solar, Sarnia Solar Power Plant Air Temperature Variation Analysis: Interim Results, March 15, 2010.

Fthenakis, V.M. and Y. Yu, Analysis of the Potential for a Heat Island Effect in Large Solar Farms, 39th IEEE Photovoltaic Specialists Conference, Tampa, FL, June 17-23, 2013 Available online at http://www.clca.columbia.edu/13_39th%20IEEE%20PVSC_%20VMF_YY_Heat%20Island%20Effect.pdf



Massachusetts Department of Energy Resources, Massachusetts Department of Environmental Protection, and Massachusetts Clean Energy Center. Questions & Answers: Ground-Mounted Solar Photovoltaic Systems. December 2012. Available: <http://www.mass.gov/eea/docs/doer/renewables/solar/solar-pv-guide.pdf>

Response 16.113

The commenter recommends combining Mitigation Measures HAZ-4(a) and HAZ-4(b), noting that the two measures are similar, and also similar to a standard County condition of approval (COA). Mitigation Measure HAZ-4(a) (Final Fuel Management Plan) requires the preparation of a Final Fuel Management Plan, prepared in consultation with the Fire Protection District and/or CAL FIRE. Among its requirements, the Final Fuel Management Plan would identify emergency access routes and road maintenance requirements. Mitigation Measure HAZ-4(b) (Emergency Access) requires that the applicant maintain adequate emergency access, and includes specific measures such as providing gate lock codes to the Monterey County Emergency Operations Dispatch. Although the maintenance of emergency access would be in compliance with the Final Fuel Management Plan, Mitigation Measure HAZ-4(b) contains additional specific requirements that are pertinent to the mitigation of the impact. Therefore, the measures are appropriately presented as separate mitigation.

The commenter does not specify which standard County COA is similar to these mitigation measures. Therefore, no specific response to this claim is possible.

Response 16.114

The commenter notes that the requirement that the recycling or disposal plan be developed prior to construction is unwarranted, as defective PV modules discovered during construction would be shipped back to the manufacturer. Further, the commenter argues that the measure should be concerned only with PV modules, and not support structures. Finally, the commenter notes that Measure HAZ-5 may be duplicative with bonding requirements in the Development Agreement that is being negotiated with the County. In accordance with this comment, Mitigation Measure HAZ-5 has been revised as follows:

HAZ-5 Disposal of PV Modules and Support Structures. Prior to ~~construction permit issuance~~ operation, the applicant shall submit a recycling or disposal plan for PV modules ~~and support structures~~ for County review and approval, in order that project structures not pose a risk to human health or the environment after project repowering and/or decommissioning. The plan shall specify how these project components shall be recycled or disposed of in a manner that will not pose a risk to human health or the environment, and the costs of such recycling or disposal. Prior to ~~grading or building permit issuance~~ operation, the applicant shall post a long-term decommissioning bond to the County of Monterey, or other mutually acceptable financial obligation, in an amount consistent with these costs (plus County



administrative costs) consistent with the requirements of the Development Agreement (if approved), and which may also include any other project decommissioning obligations.

These revisions have also been made to Mitigation Measure HAZ-5 as listed in Table 4.8-1 and Table ES-1 in the *Executive Summary*.

Response 16.115

The commenter suggests the addition of language to Section 4.8.3(a) (Methodology and Significance Thresholds) of Section 4.8, *Hazards and Hazardous Materials*, to indicate that the project includes APM-1 to address the potential environmental effects associated with project decommissioning. The discussion in question is intended to present the methodology for the analysis. The applicant-suggested language would more appropriately be located in the impact analysis. Therefore, the following modification has instead been made to the second paragraph under Impact HAZ-5:

As discussed in Section 2.0, *Project Description*, the proposed project includes APM-1 to ensure that all potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time. In addition, the project includes a conceptual decommissioning plan that describes the general types of measures that may be implemented at the time of decommissioning...

Response 16.116

The commenter provides clarifications regarding health risks associated with CdTe PV technology. Consistent with these clarifications, the following revisions have been made to the third to last paragraph of Impact HAZ-2:

CdTe appears to be less toxic than elemental cadmium in terms of acute exposure (Zayed and Philippe, 2009; Kaczmar, 2011), but the highly reactive oxidizing surface of CdTe can damage cell membranes, mitochondria, and cell nuclei depending on the technology used in quantum dot technology applications (Lovric et al., 2005), which is unrelated to the CdTe PV technology that may be used for the project.

Response 16.117

The commenter recommends combining Mitigation Measures HAZ-4(a) and HAZ-4(b). This comment is addressed in response 16.113.

Response 16.118

The commenter recommends a revision to Mitigation Measure HAZ-5. This comment is addressed in response 16.114.



Response 16.119

The commenter notes that the requirements of Mitigation Measure HYD-2(a) are similar to APM-6, which includes the preparation of a Hazardous Materials Response Plan (HMRP). To avoid confusion during condition compliance, as suggested by the commenter, the following text has been added to the end of measure HYD-2(a) in Table 4.9-1 in Section 4.9, *Hydrology and Water Quality*:

...A monitoring program shall be implemented to ensure that the plans are followed during all construction, operations, and maintenance activities. The Hazardous Materials Response Plan (HMRP) proposed as part of the project [applicant proposed measure (APM) 6] shall incorporate all of the elements of this mitigation measure. The County of Monterey shall be responsible for reviewing the applicant's proposed HMRP to confirm that it incorporates the requirements of this mitigation measure.

The same revision has been made to the mitigation measure where it is listed in Section 4.9.3(b) (Project Impacts and Mitigation Measures), as well as within Table ES-1 of the *Executive Summary*.

Response 16.120

The commenter suggests deleting the *Mitigation Measures* discussions for Impacts HYD-4 and HYD-5 in Section 4.9, *Hydrology and Water Quality*, noting that the new APM-11 would ensure that both of these impacts remain less than significant. It should be noted that both of these impacts are already considered Class III, *less than significant*, in the DEIR.

Refer to response 16.121 below. Based on the revisions shown therein, the following edits have been made to Table 4.9-1 and Table ES-1 in the *Executive Summary*:

| | | |
|--|---|--|
| <p>Impact HYD-4 The proposed project could alter the existing drainage pattern of the project area, and would introduce impervious surfaces into an area that is currently undeveloped. The project may therefore increase runoff, potentially resulting in flooding or increased erosion downstream. Impacts would be Class III, less than significant. [Thresholds 3, 4, 5]</p> | <p>The final design of the project would be required to be developed in accordance with a final, design level, drainage analysis which would include a detailed evaluation of the potential drainage impacts associated with the project, including identification of measures to reduce runoff by promoting infiltration. As noted in the <i>Preliminary Drainage Report</i> (RBF, 2013), measures to reduce runoff by promoting infiltration would be selected and configured as part of this final design considering local impacts from proposed improvements, detailed grading plans and maintenance requirements. In addition, the proposed project would be required to comply with the NPDES program, including through preparation of a SWPPP and implementation of associated BMPs, as outlined in Impact HYD-1. Compliance with recommendations in the design level drainage analysis and existing regulations would reduce impacts</p> | <p>Impacts would be less than significant.</p> |
|--|---|--|



| | | |
|--|--|---|
| | related to increased erosion downstream to a less than significant level. No mitigation would be required. | |
| Impact HYD-5 The project site contains numerous drainage channels, some of which contain flow depths and velocities that could expose proposed structures to potential flooding hazards. Impacts would be Class III, less than significant. [Threshold 9] | The applicant would be required to prepare a design level drainage analysis that would ensure both that proposed facilities avoid higher flow rates, and that any improvements within 50 feet from the top of bank of on-site drainages would comply with the requirements of Chapter 16.16 of the Monterey County Code. Compliance with the recommendations contained in the design level analysis would ensure that impacts are less than significant. No mitigation is required. | Impacts would be less than significant. |

Response 16.121

The commenter recommends revisions to the *Mitigation Measure* discussion for Impacts HYD-4 and HYD-5 based on the newly proposed APM-11. In accordance with these suggestions, the *Mitigation Measure* discussion under Impact HYD-4 has been revised as follows:

~~Mitigation Measures. The final design of the project would be required to be developed in accordance with APM-11, in which the applicant shall prepare a final, design-level, drainage analysis which would include a detailed evaluation of the potential drainage impacts associated with the project, including identification of measures to reduce runoff by promoting infiltration. As noted in the *Preliminary Drainage Report* (RBF, 2013) and in the *Preliminary Drainage Analysis Addendum* (Wallace Group, 2014), measures to reduce runoff by promoting infiltration would be selected and configured as part of this final design considering local impacts from proposed improvements, detailed grading plans and maintenance requirements. The design level drainage analysis would ensure that increases in peak runoff flow rates and volumes due to the addition of impervious surfaces such as isolated buildings are mitigated so that the post-project flow rates and volumes are no greater than pre-project flow rates and volumes for the 85th percentile storm event (NOAA Atlas 14) or a method acceptable by Monterey County and Regional Water Quality Control Board. In addition, the proposed project would be required to comply with the NPDES program, including through preparation of a SWPPP and implementation of associated BMPs, as outlined in Impact HYD-1. Compliance with recommendations in the design-level drainage analysis and existing regulations would reduce result in impacts related to increased erosion downstream that are to a less than significant level. ~~No mitigation would be required.~~~~

Mitigation Measures. No mitigation is required.

Although APM-11 includes similar requirements as identified in the *Preliminary Drainage Report* (RBF 2013) and *Preliminary Drainage Analysis Addendum* (Wallace Group 2014), they differ in that the *Preliminary Drainage Report* and *Addendum* require solar modules, transformers, substations,



and inverters to be placed a minimum of 1 foot above the 100-year water surface elevation, whereas APM-11 proposes to place solar modules and tracker actuator motors a minimum of 6 inches above the 100-year water surface elevation. To account for APM-11 and maintain consistency with the *Preliminary Drainage Report* (RBF 2013) and *Preliminary Drainage Analysis Addendum* (Wallace Group 2014), the discussion under Impact HYD-5 has been revised as follows, beginning with the fourth full paragraph of the analysis:

The proposed project would be required to implement APM-11, which requires the preparation of a design level drainage study that contains measures that ensure that project facilities are not placed in areas where they would be subject to significant flood or erosion hazards. Flood-risk and erosion avoidance measures outlined in APM-11 are generally consistent with the *Preliminary Drainage Report* (RBF 2013) and *Preliminary Drainage Analysis Addendum* (Wallace Group 2014), comply with the recommendations in the *Preliminary Drainage Report* (RBF, 2013), and the final design of the project would be required to be developed in accordance with a final, design-level, drainage analysis. As outlined in the *Preliminary Drainage Report*, the final design-level drainage analysis and would include the following requirements:

- No modules shall be placed in areas where the product of the flow depth and flow velocity is greater than 9 feet per second (corresponding to a hazard level 3, as defined in the *Preliminary Drainage Report*) during a 100-year, 24-hour storm event, based on the results of a design-level drainage analysis;
- No transformers, substations, or inverters shall be placed in areas where the flow depth exceeds 2 feet (corresponding to a hazard level 3, as defined in the *Preliminary Drainage Report*) during a 100-year, 24-hour storm event; ~~and~~

In addition, in accordance with the *Preliminary Drainage Report* (RBF 2013) and *Preliminary Drainage Analysis Addendum* (Wallace Group 2014), the final design level drainage analysis would include the following additional requirement:

- Solar modules, transformers, substations, or inverters constructed in areas where any inundation is expected to occur should be placed a minimum of 1 foot above the 100- year water surface elevation.

The Monterey County Water Resources Agency would review and approve the design-level drainage analysis. Implementation of the recommendations contained therein, ~~including the flood risk avoidance measures listed above,~~ would ensure that proposed facilities avoid significant flood or erosion hazards ~~higher flow rates~~.

... To ensure the improvements are consistent with the requirements of Chapter 16.16 of the Monterey County Code, the design-level drainage analysis prepared by the applicant in accordance with APM-11 and consistent with the requirements outlined in the *Preliminary Drainage Report* (RBF 2013) and *Preliminary Drainage Analysis Addendum* (Wallace Group 2014) described above would be required to ~~address any development proposed within 50 feet from the top of the bank of on-site drainages and prove, to the~~

satisfaction of the Monterey County Water Resources Agency, that any improvements within 50 feet from the top of bank of on-site drainages would not result in significant flood- or erosion-related hazards, and that these improvements would not affect the existing capacity of the affected watercourse, as required by Chapter 16.16 of the Monterey County Code. Implementation of the recommendations contained in the design-level drainage analysis would ensure that impacts are less than significant. ~~the proposed development would be safe from flow-related hazards and would not significantly reduce the capacity of the existing watercourses. Upon compliance with the requirement so Chapter 16.16, impacts would be less than significant.~~

Mitigation Measures. ~~As noted above, the applicant would be required to prepare a design-level drainage analysis that would ensure both that proposed facilities avoid higher flow rates, and that any improvements within 50 feet from the top of bank of on-site drainages would comply with the requirements of Chapter 16.16 of the Monterey County Code. Compliance with the recommendations contained in the design-level analysis would ensure that impacts are less than significant.~~ No mitigation is required.

The above revisions have also been made to Table 4.9-1 (Impact and Mitigation Summary: Hydrology and Water Quality) and Table ES-1 in the *Executive Summary*, as applicable.

Response 16.122

The commenter points out an error in the cumulative impact analysis. The following revision has been made within the first paragraph of the *Cumulative Impact Analysis* in Section 4.9, *Hydrology and Water Quality*:

The proposed project would require up to ~~345 AFY~~ 494 acre-feet during construction and up to 5 AFY during operation.

Response 16.123

The commenter suggests the removal of the statement that the project site is part of the larger Hearst Ranch. This statement provides context to the reader regarding the project site setting. The commenter-suggested revision has not been made.

Response 16.124

The commenter suggests clarification regarding the types of improvements that are allowable in the Farmland and Permanent Grazing zoning designations. In accordance with this comment, the following revision has been made to the first bullet in Section 4.10.2(b) (Project Site Setting) in Section 4.10, *Land Use and Planning*:

- *Farmlands (F)* designated zones are typically 40 acre minimum parcels and allow a range of uses to conserve and enhance the use of the important farmlands in the County while also providing opportunity to establish necessary support and ancillary facilities for those agricultural uses. The extent of use of land for this



designation is limited to building coverage of 5% of the subject property, except for commercial greenhouse operations, which are permitted coverage of 50%. The County of Monterey has, however, determined that solar components (e.g., PV modules, inverters, and other related infrastructure) of ground-mounted facilities will not be counted as building site coverage. (Monterey County Director Interpretation, August 2012).

Response 16.125

The commenter suggests clarification regarding the types of improvements that are allowable in the Farmland and Permanent Grazing zoning designations. In accordance with this comment, the second paragraph of the discussion for Policy LU-1.11 in Table 4.10-2 has been revised as follows:

...The County of Monterey previously determined that the solar components of ground-mounted facilities photovoltaic (PV) modules do not constitute buildings as defined in Title 21 and therefore are not subject to the building coverage requirements (Monterey County, August 2012)...

Response 16.126

The commenter suggests adding language to the consistency discussion for General Plan Policies OS-3.1 and OS-4.2 indicating that the proposed project would implement on-going construction and operational BMPs to ensure that discharges of harmful substances into streams would not exceed state or federal standards consistent with the intent of the policy. The commenter-suggested language is not an Applicant Proposed Measure (APM), nor is it specifically required by a mitigation measure contained in the DEIR. The existing discussion notes that the project would comply with the NPDES program, including implementation of associated BMPs, as well as implement an erosion control plan consistent with the County of Monterey standards as a condition of project approval.

Response 16.127

The commenter suggests revisions to the consistency discussion for General Plan Policy OS-5.3 to clarify that the project would not impact critical habitat. Consistent with this comment and the analysis contained in Section 4.4, *Biological Resources*, the following revision has been made within Table 4.10-2:

| | |
|---|---|
| <p>OS-5.3: Development shall be carefully planned to provide for the conservation and maintenance of critical habitat.</p> | <p>Potentially Consistent. As described in Section 4.4, <i>Biological Resources</i>, <u>no critical habitat could</u> would be impacted by the proposed project. <u>In addition,</u> Mitigation Measures outlined in Section 4.4, <i>Biological Resources</i>, <u>would be required to ensure conservation and maintenance of such areas, as well as to reduce potential impacts to protected wetlands.</u> These measures would reduce any potential impacts to biological resources to less than significant levels and ensure consistency with this policy.</p> |
|---|---|



Response 16.128

The commenter claims that the project applicant would not be required to pay traffic impact fees.

Response 16.129

The commenter suggests that a reference to the NPDES program in Section 4.10, *Land Use and Planning*, should be revised to clarify that it is the construction stormwater program. In accordance with the commenter's suggestion, the following clarifying revision has been made to the consistency discussion for General Plan Policy S-3.1 in Table 4.10-2:

In addition, the proposed project would be required to comply with the construction stormwater NPDES program, including through preparation of a SWPPP and implementation of associated BMPs.

Response 16.130

The commenter suggests removing the following statement from the consistency discussion for General Plan Policy PS-13.2: Feasibility of line undergrounding would be at the discretion of the Director of the Resource Management Agency. Such feasibility will be at the discretion of the Director of the Resource Management Agency, however. Therefore, the suggested revision is rejected.

Response 16.131

The commenter argues that the consistency discussion for South County Area Plan Policy SC-1.2 should be removed from Section 4.10, *Land Use and Planning*, because it is not relevant to the proposed project. Policy SC-1.2 does not specify the types of development that should be clustered, but rather states that "Clustered development shall be encouraged in all areas where development is permitted in order to make the most efficient use of land and to preserve agricultural land and open space." The County interprets this policy as applying to the proposed project. Therefore, the referenced discussion will remain in the EIR.

Response 16.132

The commenter suggests that noise impacts associated with decommissioning be treated as separate impacts, based on the notion that the approach to decommissioning impacts should be consistent throughout the DEIR. The DEIR consistently analyzes impacts of decommissioning alongside construction and operation impacts. The exceptions are Impact HAZ-5, which is specifically related to hazardous waste associated with repowering or decommissioning, and therefore is not relevant to the construction and operation phases, and AQ-7. The assessment of noise from decommissioning is therefore appropriate, and no revisions will be made to the analysis.

Response 16.133

The commenter suggests the addition of language to Section 4.11.3(a) (Methodology and Significance Thresholds) of Section 4.11, *Noise*, to indicate that the project includes APM-1 to



address the potential environmental effects associated with project decommissioning. The discussion in question is intended to present the methodology for the analysis. The commenter-suggested language would more appropriately be located in the impact analysis. Therefore, the following modification has instead been made to the last paragraph under Impact N-1:

Similar to the noise generated during construction of the proposed project, decommissioning activities would be conducted in accordance with all applicable requirements in effect at the time of project termination. As described in Section 2.0, Project Description, the project includes APM-1 to ensure that potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time. A final decommissioning plan, based on then-current technology, site conditions, and regulations, would be prepared prior to actual decommissioning. Therefore, decommissioning of the project would result in less than significant noise impacts.

In addition, the last paragraph under Impact N-2 has been revised as follows:

In addition, as described in Impact N-1, project decommissioning activities would be generally similar to project construction and be completed in 12 to 24 months. Assuming that the facility would be torn down and the materials present recycled or disposed, temporary traffic noise associated with such actions are assumed to be generally similar to the noise levels that would occur during project construction. In addition, as described in Section 2.0, Project Description, the project includes APM-1 to ensure that potential environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time. ~~Therefore,~~ decommissioning of the project would result in less than significant transportation noise impacts.

Response 16.134

The commenter notes that some weekend work may be necessary, and suggests a revision to Impact N-1 to clarify this point. As noted in Section 2.6.1 of Section 2.0, *Project Description*, "Some earlier or later hours and weekend work may also be required to maintain the project construction schedule and accommodate deliveries." Consistent with the project description and this comment, the following revision has been made to first paragraph below Table 4.11-6 has been revised as follows:

...Due to hot weather, between June 1 and September 30, construction activities may begin as early as 5:00 AM and continue to 9:00 PM, Monday through Friday. A limited amount of construction work on the weekends may be required, depending on project scheduling, equipment and material delivery schedules, and other logistical considerations. ~~Some~~ nighttime construction may be required to finish construction activities that cannot be readily stopped at the end of the regular construction day or to maintain the construction schedule...

It should also be noted that the extent of potential traffic-related impacts on weekends would be limited, since weekend construction activities would occur outside of regular weekday peak



periods. The evaluation of potential traffic related effects is generally focused on peak periods of travel when the volume of traffic is greatest and therefore would be most sensitive to additional traffic associated with project construction. Since weekend construction activities would occur outside of the typical peak hour periods, potential impacts would be less than significant.

Response 16.135

The commenter suggests that the analysis of construction noise impacts be more specific about the distances between proposed laydown areas and sensitive receptors. The first paragraph under Impact N-2 in Section 4.11, *Noise*, has been revised as follows:

Construction activity at these sites may result in noise associated with equipment loading and off-loading and vehicle trips; however, no sensitive noise receptors are located within one mile of these locations. The proposed 38-acre laydown area is located approximately five miles southeast of the nearest sensitive receptors, and no sensitive receptors are located in close proximity to the proposed staging areas located at the project entrance. Therefore construction activity associated with the proposed laydown areas would not result in a significant noise impact.

Response 16.136

The commenter requests that the DEIR acknowledge APM-1 to address potential environmental effects associated with project decommissioning. Refer to response 16.133; the commenter-suggested language has been added to Impact N-1.

The commenter additionally references a previous comment suggesting that decommissioning be considered as a separate impact for noise. Refer to response 16.132. The DEIR consistently analyzes impacts of decommissioning alongside construction and operation impacts. The exception is Impact HAZ-5, which is specifically related to hazardous waste associated with repowering or decommissioning. The assessment of noise from decommissioning is therefore appropriate, and no revisions will be made to the analysis.

Response 16.137

The commenter requests that the DEIR acknowledge APM-1 to address potential environmental effects associated with project decommissioning. Refer to response 16.133; the commenter-suggestion language has been added to Impact N-2.

Response 16.138

The commenter suggests the addition of language to Section 4.12.3(a) (Methodology and Significance Thresholds) of Section 4.12, *Public Services*, to indicate that the project includes APM-1 to address the potential environmental effects associated with project decommissioning. The discussion in question is intended to present the methodology for the analysis. The commenter-suggested language would more appropriately be located in the impact analysis.



Therefore, the following modification has instead been made to the second to last paragraph of Impact PS-3:

...Waste disposed to landfill during project decommissioning would be distributed to landfills in existence at the time. Similar to the construction phase, a demolition waste diversion program would be required by the SVSWA and San Luis Obispo County IWMA. In addition, as described in Section 2.0, Project Description, the project includes APM-1 to ensure that potential future environmental effects associated with project decommissioning – including those related to solid waste – would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.

Response 16.139

The commenter suggests deletion of a full paragraph under Impact PS-1 in Section 4.12, *Public Services*, based on the applicant's discussions with CALFIRE. The paragraph is concerning the requirement for additional, specialized training to respond to a fire at the proposed project site. In their comments on the DEIR, CAL FIRE indicated that not only should this paragraph not be removed, but noted that the obligation for funding this specialized training lies with the project proponent, not CAL FIRE (refer to response 6.6). Therefore, the paragraph has not been removed from the DEIR.

Response 16.140

The commenter suggests that Mitigation Measure T-4 in section 4.13, *Transportation/Traffic*, should be deleted. As described in the analysis for Impact T-4, the project would add 28 daily trips (10 in the AM peak hour and 10 in the PM peak hour) to the roadway network during operation, including at the SR 41/SR 46 intersection. The intersection of SR 41/46 southbound left movement currently operates at unacceptable LOS F during Friday PM peak hour conditions. Therefore, although the project's contribution to traffic at this intersection is relatively small (10 trips in the PM peak hour), *any* addition of traffic to this intersection during the Friday PM peak hour would be considered a potentially significant short term impact in light of planned Caltrans widening improvements identified for the SR 41/46 intersection. Mitigation Measure T-4 is required to reduce the impact to less than significant.

It should also be noted that this is a temporary impact. At such time as planned improvements to the intersection are completed, the impact would no longer occur and a flagman, as required by Mitigation Measure T-4, would no longer be necessary.

Response 16.141

The commenter suggests removing the requirement that park and ride facilities be already improved and have existing stormwater drainage infrastructure in place, as currently required by Mitigation Measure T-7 in Section 4.13, *Transportation/Traffic*. As noted in response 12.8, the following detail has been added to Section 2.0, *Project Description*: "...the locations of park-and-ride facilities would consist of previously disturbed and/or developed areas (paved or unpaved) that have historically been used for parking purposes." The requirement in Mitigation Measure T-7 that lots be improved and have existing stormwater drainage infrastructure in



place is generally consistent with this project description language. However, to ensure that parking facilities comply with this design requirement, the mitigation measure will remain as worded.

Response 16.142

The commenter suggests the addition of language to Section 4.13.3(a) (Methodology and Significance Thresholds) of Section 4.13, *Transportation/Traffic*, to indicate that the project includes APM-1 to address the potential environmental effects associated with project decommissioning. The discussion in question is intended to present the methodology for the analysis. The commenter-suggested language would more appropriately be located in the impact analysis. Therefore, the following modification has instead been made to the fourth full paragraph under Impact T-1:

... decommissioning would likely involve construction truck trips and construction vehicle trips to transport employees to the site to dismantle the facility. Truck trips may also be required to transport the dismantled facility to a waste processing facility or recycling facility. The number of construction truck trips, construction vehicles, and travel routes are unknown at this time. As described in Section 2.0, *Project Description*, the project includes APM-1 to ensure that potential environmental effects associated with project decommissioning – including those related to traffic and circulation – would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.

Response 16.143

The commenter argues that the DEIR overstates the potential traffic-related effects associated with the operational phase of the proposed project, and recommends adding language to suggest that the impact would be similar to existing conditions. As described under Impact T-3 in Section 4.13, *Transportation/Traffic*, the proposed project would add 28 daily trips to the roadway network. While this amount of traffic is relatively small, the roadway segment of SR 46 between SR 41 and Branch Road currently operates at an unacceptable LOS E based on Caltrans LOS standards. Therefore, *any* addition of traffic to this segment would be considered a potentially significant impact.

The DEIR analysis further acknowledges that Caltrans is currently widening SR 46 from two lanes to four lanes from West Centre Street – McMillan Canyon Road to the four lane expressway section at Branch Road. The completion of this widening project would eliminate the significant operational impact. However, the segment from West Center Drive through SR 41 and the segment immediately east of SR 41 are not anticipated to be constructed until 2018 (Kimley-Horn, 2013) – after the project is anticipated to be operating. Until such time as the widening along SR 46 is complete, the addition of project generated traffic to this roadway segment would result in a significant impact to roadway operations.

The DEIR appropriately characterizes this impact as temporary, and does not overstate the level of impact but rather quantifies the number of trips added to the roadway network (28 daily



trips, including 10 in the AM peak hour and 10 in the PM peak hour). Therefore, no revisions have been made to the DEIR in response to this comment.

Response 16.144

The commenter argues that Impact T-5 in Section 4.13, *Transportation/Traffic*, should be deleted because it misinterprets the relevant CEQA threshold to conclude that a significant and unavoidable impact will occur due to existing traffic hazards. As indicated in the impact statement for Impact T-5, the impact relates to threshold 4: “Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).” Although the SR 41/46 intersection is an existing condition, it has an accident rate of more than two times the statewide average, and is therefore considered an existing hazard. The project would increase this hazard through the addition of new trips through the intersection. The focus of this threshold relates to the “increase in hazards to a design feature” which in this case is an intersection with a higher than normal incidence of accidents. “Incompatible uses” in threshold 4 identifies farm equipment in relation to higher speed vehicles as an example, but in this situation the addition of new trips to a hazardous intersection is considered an incompatible use for the purposes of this DEIR. The application of threshold 4 to this condition is appropriate for purposes of disclosing and analyzing the safety impact.

Response 16.145

Refer to response 16.144.

Response 16.146

The commenter recommends the addition of a decommissioning-specific impact to improve consistency among DEIR sections. As noted in response 16.132, the DEIR consistently analyzes impacts of decommissioning alongside construction and operation impacts. The exceptions are Impact HAZ-5, which is specifically related to hazardous waste associated with repowering or decommissioning, and AQ-7. The assessment of traffic from decommissioning is therefore appropriate, and no revisions will be made to the analysis.

Response 16.147

The commenter suggests minor text revisions related to the amount of workers that would commute to the project and the amount of workers that would choose to live closer to the project, based on the fact that 95% of the construction workforce would be shuttled to the site. Similar to the commenter’s suggestion, the following revision has been made to the third paragraph of the *Construction Workforce* discussion in Section 6.1.1 (Economic and Population Growth):

As a condition of employment, 95% of construction personnel would be required to commute to the project site via the proposed employee shuttle that would depart from specified park-and-ride lots. Only 5% of employees would be given permits to drive personal vehicles to the site. While some the majority of the labor force would likely



commute to the project park-and-ride lots from existing residences, some may elect to temporarily relocate near the project site. Given the remote nature of the project site and the relatively limited availability of lodging in nearby rural communities (including Parkfield, Cholame, and Shandon), it is assumed that the majority of workers would find accommodation in the City of Paso Robles and/or the City of Avenal.

Response 16.148

The commenter contends that, because 95% of construction personnel would be shuttled to the site, demand for temporary accommodations during construction would not result in an impact to existing housing supply. Although the majority of the labor force would likely commute to the project park-and-ride lots from existing residences, some may still elect to temporarily relocate, as noted in the revision shown in response 16.148. Further, as noted in Section 6.0, *Long-Term Impacts*, temporary housing of this workforce would occur at the exclusion of other travelers and seasonal residents. Additionally, many of the accommodations available, such as recreational campsites, are not designed for long-term temporary residents and such use would deteriorate or degrade the facilities. As such, demand for temporary accommodations during construction would result in significant impacts to the existing housing supply.

Response 16.149

The commenter suggests removing Mitigation Measure LT-1 in Section 6.0, *Long-Term Impacts*. Refer to response 16.148. Mitigation is required to alleviate the temporary direct and indirect population growth impacts resulting from worker relocation.

Response 16.150

The commenter suggests a minor clarification associated with the *Hydrology and Water Quality* discussion for Alternative 2 (Alternate Jack Ranch Site) in Section 7.0, *Alternatives*. Accordingly, the following revision has been made:

Similar to the proposed project, this alternative would require water for dust suppression purposes during construction, as well as water to ~~potable water would be needed to~~ wash the modules and support overall operations at the site.

Response 16.151

The commenter points out that project-related traffic for Alternative 2 would not be required to make a left turn onto eastbound SR 46 from SR 41. Therefore, Mitigation Measure T-2 would not apply to this alternative. Accordingly, the following revisions have been made to the second and fourth paragraphs of the *Transportation/Traffic* discussion for Alternative 2 (Alternate Jack Ranch Site) in Section 7.0, *Alternatives*:

~~As with the proposed project, construction of this alternative would add trips to the intersection of SR 41/SR 46, which currently operates at LOS F during the Friday PM Peak Hour. This impact would be Class II, significant but mitigable, with implementation of Mitigation Measure T-2, similar to the proposed project. This alternative would avoid~~



potential impacts associated with the proposed project's addition of trips to the intersection of SR41/SR 46. The southbound left turn movement from SR 41 to SR 46 currently operates at an LOS F. This alternative would not add any trips traveling on SR 41 making a left onto eastbound SR 46. As a result, no mitigation would be warranted.

... Project generated traffic during the operation phase would add trips to the intersection of SR 41/ SR 46, ~~similar to the proposed project~~. As discussed, ~~this the southbound left at this intersection currently operates at LOS F during the Friday PM Peak Hour. This alternative would not contribute any traffic trips making a southbound left from SR 41 onto eastbound SR 46. As a result, this alternative would avoid the significant impacts associated with the proposed project (Impacts T-2 and T-4). Alternative related traffic would cause a Class II, significant but mitigable impact with implementation of Mitigation Measure T 4. As described for the proposed project, accident rates at the intersection of SR 41 / SR 46 are more than two times the statewide average. Addition of traffic to this intersection during construction and operation of the proposed project could exacerbate existing hazards. Implementation of Mitigation Measures T 2 and T 4 would reduce the impact but it would remain Class I, significant and unavoidable.~~

Response 16.152

Refer to response 16.151 above.

Response 16.153

The commenter points out that, due to the similarities between the proposed project and Alternative 2, it is unlikely that Alternative 2 could be phased so as to avoid the need for a shuttle service. Therefore, the following revisions have been made to the sixth paragraph of *Transportation/Traffic* discussion for Alternative 2 (Alternate Jack Ranch Site) in Section 7.0, *Alternatives*:

Given that this alternative would construct a 280 MW solar generating facility over 12 to 24 months, similar to the proposed project, it is assumed that the alternative site location, it is unknown whether an employee shuttle service would be needed to provide transport to and from the site during construction. It may be possible to phase construction to accommodate construction worker vehicles which would avoid the need for an off-site park and ride lot and related environmental impacts. If so, impacts associated with the proposed project would be avoided. If not, As a result, impacts related to the secondary effects of park and ride lots would likely be similar to those described for the proposed project and Class II, significant but mitigable through implementation of Mitigation Measure T-7.

Response 16.154

The commenter suggests that the description of Alternative 3 should compare the footprint of the alternative to the solar development area of the proposed project, rather than the entire project site. The current comparison is of the total footprint of the alternative with the total



footprint of the project, which is appropriate because the solar development area (of both the alternative and the proposed project) is smaller than the total project site (refer to Figure 2-4a in Section 2.0, *Project Description*, and Figure 7-3 in Section 7.0, *Alternatives*).

Response 16.155

The commenter suggests a minor clarification associated with the *Hydrology and Water Quality* discussion for Alternative 3 (Reduced Project) in Section 7.0, *Alternatives*. Accordingly, the following revision has been made:

Similar to the proposed project, ~~potable water would be needed to~~ this alternative would require water for dust suppression purposes during construction, as well as water to wash the PV modules and support overall operations at the site.

Response 16.156

The commenter suggests updating Table 7-1 to reflect any changes in significance for each of the alternatives based on revisions made in response to their comments on the alternatives analysis. The transportation/traffic row for Alternative 2 has been modified to indicate that the alternative would have both greater impacts and equivalent impacts to the proposed project, rather than just equivalent impacts, as follows: +/-

Response 16.157

The commenter suggests revising Table ES-1 in the *Executive Summary* as necessary to ensure consistency with revisions made in response to previous comments. These revisions have been made. Refer to responses 16.22, 16.23, 16.25-16.28, 16.88, 16.94, 16.95, 16.114, 16.119, 16.120, 16.121, 16.166, and 16.167.

It should be noted that, where mitigation measures in Section 4.4, *Biological Resources*, were updated, no revisions to Table ES-1 *Executive Summary* is required, as only the mitigation numbers and titles are listed and no revisions to the numbers or titles were made. Refer to responses 16.51, 16.53 through 16.57, 16.59-16.61, 16.63, 16.64, 16.66-16.68, 16.70-16.75, 16.77, 16.84, 16.85, and 16.184 for responses that revised mitigation language in Section 4.4.

Response 16.158

The commenter requests a revision to Figure 2-2 in Section 2.0, *Project Description*, to correct a typographical error. The revised figure is included in Section 4.0, *Amendments to the EIR*, as Figure 2-2a (refer also to response 16.159, below).

Response 16.159

The commenter suggests adding a figure depicting each of the project's geographic characteristics (or boundaries). A new figure (Figure 2-2b) has been added to Section 2.0, *Project Description*. In addition, the second paragraph under Section 2.4 (Project Location) has been revised as follows:



...In addition, implementation of the proposed solar project would require construction and operation of an approximately 155-acre utility corridor and improvements to an existing private access road within an approximately 60-acre area. The various project boundaries are shown in Figure 2-2b, and tThese proposed project features are described in more detail under Section 2.5, Project Characteristics.

Response 16.160

The commenter clarifies that arrays would be 13 feet off the ground at the highest point, rather than 10 feet. The following revision has therefore been made to the third paragraph of the *Solar Modules, Collection Systems, and Inverters* discussion in Section 2.5.1 (Energy-Related Infrastructure) in Section 2.0, *Project Description*:

...With a fixed-tilt system, the modules would be fixed at an angle between 20 to 25 degrees to the south and would not move. Fixed-tilt modules would be up to ~~ten~~ 13 feet off the ground surface at the highest point of the array depending on the terrain...

It should be noted that this modification is not anticipated to increase impacts related to aesthetics or glare. As noted in Section 4.1, *Aesthetics*, glint and glare from solar panels would primarily depend on the angle of the panel, the height and location of the sun, and the direction and proximity of off-site sensitive receptors. In addition, the only off-site receptors are two residences located approximately 775 feet north of the project site, and solar modules would be tilted at an angle between 20 to 25 degrees to the south to achieve maximum sun exposure. If any exposure occurred at these receptors, the duration would be expected to be relatively short, and the height of the solar modules would not substantially influence the length of exposure.

Response 16.161

In accordance with the commenter's suggestion, a minor typographical edit has been made to the seventh paragraph of the *Solar Modules, Collection Systems, and Inverters* discussion in Section 2.5.1 (Energy-Related Infrastructure) in Section 2.0, *Project Description*:

A high-capacity 34.5 Kv collection system line would collect power in the northern and southern areas of the project site...The southern portions of the project site would also be linked by a high-capacity 34.5 Kv collection system line corridor...

Response 16.162

In accordance with the commenter's suggestion, the second paragraph of the *On-Site Substations* discussion in Section 2.5.1 (Energy-Related Infrastructure) in Section 2.0, *Project Description*, has been revised as follows:

The substations areas would be improved with compacted materials and concrete pads to support electrical equipment and supporting infrastructure. The substations structures would range in height from approximately 20 to ~~90~~ 130 feet, as shown in Figure 2-7ab...



It should be noted that this increase in height is not anticipated to result in greater aesthetic impacts. As noted in Section 4.1, *Aesthetics*, the nearest sensitive receptors are two residences located approximately 775 feet north of the project site. In addition, the only public right-of-way from which the project site is visible is the end of Turkey Flat Road, near these residences. The substations would be located on either end of the 230 kV overhead transmission line corridor, in the central and southern portions of the site (refer to Figure 2-4a in Section 2.0, *Project Description*). These facilities would not be visible from these residences or any public right-of-way.

Refer also to response 17.3.

Response 16.163

In accordance with the commenter's suggestion, a minor typographical edit has been made to the *Access Road Improvements* discussion in Section 2.5.2 (Other Structures and Improvements) in Section 2.0, *Project Description*:

...These improvements would include: widening the access road from 15 to up to 30 feet, resurfacing with aggregate material...

Response 16.164

In accordance with the commenter's suggestion, a minor typographical edit has been made to the last paragraph of the *Internal Roadways* discussion in Section 2.5.2 (Other Structures and Improvements) in Section 2.0, *Project Description*:

Best Management Practices (BMPs) for construction and maintenance of roads would be implemented, as ~~well as the Applicant Proposed Measures (APMs)~~ described in Section 2.6.5, as well as the Applicant Proposed Measures (APMs) described in Section 2.9.

Response 16.165

In accordance with the commenter's suggestion, a minor typographical edit has been made to the third paragraph of Impact AES-2 in Section 4.1, *Aesthetics*:

...Visible improvements would include: widening the access road up to 30 feet in all locations, resurfacing with aggregate material, widening the existing culverts to accommodate the 30-foot width of the access road, and creating turnouts to accommodate emergency vehicle access...

Response 16.166

The commenter argues that the requirement that all operators of buggy carts take a training course prior to operation of any vehicle on the site is overly broad. In response to this comment, Mitigation Measure AQ-2(a) in Section 4.3, *Air Quality*, has been revised as follows:



- The project applicant shall maintain a 15 mph speed limit on roads where water application is the sole form of dust control, and shall post signs to remind workers throughout the work areas. The project applicant shall monitor to ensure compliance with the speed limit. As an additional measure, all of the cart operators shall be required to complete a ~~buggy~~ cart training course prior to operation of ~~any vehicle~~ carts on site;

The above revision has also been made to Mitigation Measure AQ-2(a) in Table 4.3-1 and Table ES in the *Executive Summary*.

Response 16.167

The commenter suggests that dust monitors should provide their reports to a site dust manager. In response to this comment, the following revision has been made to the last bullet of Mitigation Measure AQ-2(a) in Section 4.3, *Air Quality*:

- The contractor or builder shall designate a site dust manager and up to four persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite...

The above revision has also been made to this mitigation measure in Table 4.3-1 and Table ES-1 in the *Executive Summary*.

Response 16.168

The commenter requests an update to the source information for Figures 4.4-1 and 4.4-2a through 4.4-2f. These figures have been revised to indicate the following source: Amy Sparks (H.T. Harvey & Associates and First Solar, 2014). The revised figures are included in Section 4.0, *Amendments to the EIR*.

Response 16.169

The commenter remarks on Table 4.4-2 that the Solar Generating Facility Area column incorrectly states the acreage for willow-cottonwood riparian forest as 2.53 acres, rather than the corrected area of 1.72 acres. This was a clerical error and Table 4.4-2 has been revised accordingly as shown below. The total acreage presented in Table 4.4-2 for Solar Generating Facility Area did not require revision.

| Habitat | Solar Generating Facility Area | Access Road | Utility Corridor |
|---------------------------------------|--------------------------------|-------------|------------------|
| Tree Dominated Habitats | | | |
| Willow-Cottonwood Riparian Woodland | 2.53 1.72 | -- | -- |
| Cottonwood Alluvial Riparian Woodland | -- | -- | -- |



Response 16.170

The commenter suggests the use of the term “project impact area” rather than “project site.” The term “project site” is defined in Section 2.5 (Project Characteristics) and reiterated in Section 4.4.2 (Setting) as “the combined impact areas that include the Solar Generating Facility Area, the Access Road and the Utility Corridor.” This term is used appropriately and consistently throughout Section 4.4.2(b) (Habitats). Therefore, no revision is necessary.

Response 16.171

The commenter points out that Section 4.4.2(b) (Habitats) contains an erroneous reference to Figure 3a. This error has been revised in the third paragraph of the *Seasonal Wetland* discussion, as follows:

The alkali wetlands on the BSA are concentrated in the northeastern corner where alkaline minerals have accumulated in the foothills and valley floor, forming a wetland complex where surface and subsurface water drains into the BSA from watersheds to the northeast (Figure ~~3a~~4.4-2a).

Response 16.172

The commenter remarks on Section 4.4.1 subsection Sensitive Plant Communities and Critical Habitat that the acreage of Wildflower Fields have not been updated to match the Addendum to Biotic Resources Report and Biological Resources Impact Analysis (HTH 2014e; Appendix E.13) report’s project impact acreages, and that clarification is needed regarding location and extent within project impact areas such that there is no apparent overlap in acreages presented. The following clarifications were made to the *Sensitive Plant Communities and Critical Habitat* discussion in Section 4.4.2(f) (Special Status Resources):

Sensitive Plant Communities and Critical Habitat. Three sensitive plant communities are known to occur within the vicinity of the BSA: Wildflower Fields, Great Valley Mesquite Scrub and Valley Sink Scrub. Neither Great Valley Mesquite Scrub nor Valley Sink Scrub plant communities were documented within the BSA; however, Wildflower Fields are present on ~~540.58~~551.87 acres within the Solar Generating Facility Area project site, and 0.271 acres in the Access Road, and 0.13 acres within the Utility Corridor. This community was not detected within the Utility Corridor...

Response 16.173

The commenter remarks on rare plant survey coverage in Section 4.4.1, pointing out that the 2013 rare plant surveys did not cover the utility corridor, because it was not part of the project at that time. Additionally, the commenter remarks on a discrepancy between the findings in Table 4.4-4 in the DEIR for potential occurrence of Hoover’s eriastrum and Mason’s nest straw in the utility corridor versus the text of Section 4.4.1 (Summary). Clarifications to survey areas have been provided in Section 4.4.2(f) (Special Status Resources) to address these clerical errors, as follows:

Special Status Plants and Animals. Special status plants and animals, their listing status, habitats, and potential to occur within the BSA are presented in Table 4.4-4. Figures



4.4-4 -4.4-6 depict the distribution of CNDDDB (2013) records of special status plant, reptiles and amphibians, and other wildlife species and critical habitat (respectively) in the vicinity of the BSA. Most of the 53 special status plants and 32 special status animal species known from the region and listed in Table 4.4-4 have at least some potential to occur within the BSA except for the yellow warbler (*Dendroica petechia*), Indian valley spineflower (*Aristocapsa insignis*), Hardham’s suncup (*Camissonia hardhamiae*), ~~Hoover’s eriastrum (*Eriastrum hooveri*)~~, delicate blue cup (*Githopsis tenella*), and San Antonio hill monardella (*Monardella antonina* ssp. *antonina*), ~~and Mason’s neststraw (*Stylocline masonii*)~~.

Special status plant surveys were conducted from March through July 2013 across the BSA, except in the Utility Corridor area which was not part of the project at the time of these botanical surveys, in accordance with protocols established by the U.S. Fish and Wildlife Service (USFWS), CDFW, and CNPS. A variety of surveys were conducted including surveys focused on the direct impact areas for the project plus a 100-foot buffer, except in the Utility Corridor area as noted above...

Response 16.174

The commenter points out that Figure 4.4-3 depicts an older, out-of-date site plan, which does not show the proposed utility corridor. This figure has been revised. Refer to Section 4.0, *Amendments to the EIR*, for these revised figures.

Response 16.175

The commenter remarks on discovery of *Convolvulus simulans* within the access road corridor during 2014 surveys subsequent to 2013 botanical rare plant surveys. The results of these surveys are included in the 2014 Rare Plants Survey Report (HTH 2014h; FEIR Appendix E. 15), and the results of that surveys did not substantially alter the evaluation of impacts to special status species or require any additional mitigation. Table 4.4-4 has been revised based on the new information from the 2014 surveys as follows:

| Scientific Name Common Name | Potential for Occurrence within the Access Road |
|--|---|
| <i>Convolvulus simulans</i> small-flowered morning glory | Absent. Not observed in Access Road corridor during 2013 protocol rare plant surveys. Present. Detected in the Access Road corridor during surveys in 2014. |

Response 16.176

The commenter remarks on a statement in Table 4.4-4 that indicates bald eagle nesting distribution is currently expanding, questioning whether there is factual support for this statement in the vicinity of the project. This statement is directly quoted from the Biotic Report (HTH 2014b; DEIR Appendix E.1). Expansion of bald eagle nesting distribution, including expansion in central California counties, is well documented from the late 1990s onward as species recovery from DDT



impacts progressed. As stated in the Final Biotic Report (HTH 2014b; DEIR Appendix E.1), “Between 1993 and 2012 the number of nesting territories known in the central coast region increased from one to 29 (Ventana Wildlife Society 2012). As of the 2012 nesting season, Monterey County contained six, known occupied nesting territories and San Luis Obispo County contained nine occupied territories (Ventana Wildlife Society 2012).” Aerial surveys performed by HTH identified one active nest and one potential inactive nest not previously known from the region, supporting the statement that bald eagle nesting distribution is expanding in the vicinity of the project.

Response 16.177

The commenter remarks on a statement in Table 4.4-4, suggesting that a statement regarding suitability for coast horned lizard be clarified to identify that suitable habitat is within the utility corridor rather than more generically, the project site. Table 4.4-4 identifies suitable habitat in the solar generating facility area, the access road, and the utility corridor. The use of “project site” in these table entries is redundant. Therefore, the following revisions to Table 4.4-4 have been made:

| <i>Scientific Name</i> <i>Common Name</i> | Potential for Occurrence within the Solar Generating Facility Area | Potential for Occurrence within the Access Road | Potential for Occurrence within the Utility Corridor |
|--|---|---|--|
| <i>Phrynosoma blainvillii</i> coast horned lizard | Possible. Moderately suitable habitat present on the project site . There is a record for the species within 3 miles south of the project site. | Possible. Moderately suitable habitat present. There is a record for the species within 2 miles west of the Access Road. | Possible. Moderately suitable habitat present on the project site . There is a record for the species within 3 miles to the south. |

Response 16.178

The commenter suggests that the *Oregon Vesper Sparrow* discussion in Section 4.4.1 should clarify that the utility corridor was added to the project description after the majority of avian surveys were completed, but that potential for occurrence of special status species in the utility corridor can be evaluated, as identified in Table 4.4-4. To clarify this point, the following statement was added to the end of the *Special Status Birds* discussion in Section 4.4.1:

Special Status Birds. Six special status bird species were detected within the BSA: tricolored blackbird (*Agelaius tricolor*), golden eagle (*Aquila chrysaetos*), short-eared owl (*Asio flammeus*), burrowing owl (*Athene cunicularia*), bald eagle (*Haliaeetus leucocephalus*), and loggerhead shrike (*Lanius ludovicianus*). Another six special status bird species have the potential to occur on-site: grasshopper sparrow (*Ammodramus savannarum*), long-eared owl (*Asio otus*), mountain plover (*Charadrius montanus*), northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), and Oregon vesper sparrow (*Pooecetes gramineus affinis*). The Utility Corridor was added to the project description after the majority of avian surveys were completed. However, the potential for occurrence can be evaluated, and Table 4.4-4 identifies those special status avian species with potential to occur in the Utility Corridor.

In addition, the discussion of *Oregon Vesper Sparrow* in Section 4.4.1 was also clarified, as follows:

...While this subspecies has not been observed on-site, suitable wintering habitat is present within the Solar Generating Facility Area, project site and the Access Road, and Utility Corridor.



Response 16.179

The commenter remarks on a statement in Section 4.4.1 subsection San Joaquin Pocket Mouse, noting that this section should clarify the utility corridor was added to the project description after the majority of mammal surveys were completed, but that potential for occurrence of special status species in the utility corridor can be evaluated, as identified in Table 4.4-4. To clarify this point, the following statement was added to the *Special Status Mammals* discussion in Section 4.4.1:

Special Status Mammals. Two special status mammal species were detected on-site: San Joaquin kit fox (*Vulpes macrotis mutica*) and American badger (*Taxidea taxus*). Another three special status mammals have the potential to occur on-site: Pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis californicus*), and San Joaquin pocket mouse (*Perognathus inornatus inornatus*). The Utility Corridor was added to the project description after the majority of mammal surveys were completed. However, the potential for occurrence can be evaluated, and Table 4.4-4 identifies those special status mammal species with potential to occur in the Utility Corridor.

In addition, the discussion of *San Joaquin Pocket Mouse* in Section 4.4.1 was also clarified, as follows:

San Joaquin Pocket Mouse. The nearest CNDDDB record for San Joaquin pocket mouse is approximately 14 miles east of the BSA. Though none were detected within the Solar Generating Facility Area, the project site or Access Road, or Utility Corridor, San Joaquin pocket mice could occur where suitable friable soils are present in grasslands and blue oak woodlands.

Response 16.180

The commenter recommends clarification that 2012 and 2013 vernal pool branchiopod surveys did not cover the utility corridor, because it was not part of the project at that time. In response to this comment, the following revisions have been made to the *Special Status Invertebrates* discussion in Section 4.4.2(f) (Special Status Resources):

Special Status Invertebrates. Critical habitat for vernal pool fairy shrimp (*Branchinecta lynchi*) is located approximately 10 miles to the west of the BSA. Protocol vernal pool branchiopod surveys were conducted within the BSA, except in the Utility Corridor area which was not part of the project at the time of these surveys,...

Wet-season protocol surveys were conducted within the BSA, except in the Utility Corridor area as noted above, during the 2012/2013 winter rainy season. Nine seasonal wetlands were sampled and no listed branchiopods were detected; however, the area received approximately 50% of the average precipitation recorded for the region containing the BSA. Please refer to the Wet-Season Branchiopod report in Appendix E.9 for more details.

Note that the Utility Corridor study area was added to the project after dry-season and wet-season sampling was completed; and, therefore, was not subject to vernal pool branchiopod surveys. However, the potential for occurrence can be evaluated, and Table



4.4-4 identifies those special status branchiopod species with potential to occur in the Utility Corridor.

Response 16.181

The commenter recommends minor typographical edits to Figure 4.4-7 in Section 4.4, *Biological Resources*. This figure has been revised to have the title “Vernal Pool Branchiopod Survey Coverage and Occupied Habitat” and indicate the following source: Amy Sparks (H.T. Harvey & Associates and First Solar, 2014). The revised figure is included in Section 4.0, *Amendments to the EIR*.

The updated figure title has also been modified in the *Table of Contents*.

Response 16.182

The commenter requests an update to the source information for Figures 4.4-8 through 4.4-11. These figures have been revised to indicate the following source: Amy Sparks (H.T. Harvey & Associates and First Solar, 2014). The revised figure is included in Section 4.0, *Amendments to the EIR*.

Response 16.183

The commenter identifies a clerical error in Table 4.4-7 that incorrectly states the amount of California tiger salamander habitat impact acreage in the “0 – 1844 feet” row, under the “Solar Generating Facility Area, Total” column. This error has been corrected to replace the incorrect acreage with the corrected value of 85.88.

| Distance from Breeding Pond | Solar Generating Facility Area | | | Access Road | | | Utility Corridor | | |
|-----------------------------|--------------------------------|--------|--------|-------------|-------|-------|------------------|------|-------|
| | Temp | Perm | Total | Temp | Perm | Total | Temp | Perm | Total |
| 0 – 1,844 feet | 24.34 | 61.54 | 885.88 | 14.14 | 8.5 | 22.64 | 2.4 | 0.2 | 2.6 |
| 1,844 – 4,925 feet | 83.25 | 659.32 | 742.57 | 21.72 | 12.11 | 33.83 | 3.5 | 0.3 | 3.8 |
| 4,925 – 6,125 feet | 72.07 | 314.77 | 386.84 | 1.39 | 0.83 | 2.22 | 0.8 | 0.1 | 0.9 |

Response 16.184

The commenter suggests that the requirement for a wildlife-friendly fence design plan to be submitted to USFWS and CDFW is not warranted, as neither agency has approval authority over the fence design. However, this measure regarding wildlife friendly fencing specifically discusses SJKF passage. Because SJKF are both state and federally listed, fencing intended to allow SJKF passage must meet CDFW and USFWS requirements. The measure states that copies of the plan would be provided to CDFW and USFWS for review. This review is intended to ensure fencing activities are not in conflict with other measures protecting SJKF. The County is identified as the approving authority for this measure. No changes have been made in response to this comment. However, a typographical error was corrected in the measure as follows:



Mitigation Timing: The Wildlife-friendly fence design plans shall be submitted by the applicant to the County, CDFW, and USFWS for review and approval by the County prior to issuance of grading permits.

Response 16.185

The commenter identifies a clerical error in Impact B-2 that incorrectly refers to Table 4.4-7 (Impact Acreages for Upland Habitat within Four Distance Intervals from Potential California Tiger Salamander Breeding Ponds) rather than Table 4.4-8 (Summary of Impacts on Natural Communities in the Project Impact Area). The clerical error has been addressed throughout this section to correctly reference Table 4.4-8. Additionally, other table references that incorrectly referred to the wrong table number due to insertion of additional tables into the report section were also corrected (Tables 4.4-6, 4.4-7, 4.4-8, and 4.4-9).

Response 16.186

The commenter identifies a typographical error in which permanent impacts to mixed oak woodland were reported as 0.01 acre rather than the correct value of 0.1 acre. The error has been corrected in the *Mixed Oak Woodland: Permanent Impacts* discussion in Impact B-2, as follows:

...project activity could result in permanent impacts to up to 0.01 acres of oak woodland from potential linear.

Response 16.187

The commenter identifies a clerical error in which acreages for three land cover types (Agricultural, Cottonwood Alluvial Woodland, and Alluvial Intermittent Stream) were omitted from Table 4.4-8. This error has been corrected by adding these types and acreages to the table, and re-checking totals. These revisions are shown on the following page.

Response 16.188

The commenter requests an update to the source information for Figure 4 4-12. This figure has been revised to indicate the following source: Amy Sparks (H.T. Harvey & Associates and First Solar, 2014). The revised figure is included in Section 4.0, *Amendments to the EIR*.

Response 16.189

The commenter suggests a minor typographical edit to the mitigation discussion for Impact HYD-4 in Table 4.9-1 in Section 4.9, *Hydrology and Water Quality*. Refer to response 16.120; as noted therein, the discussion in question has been removed and replaced with the statement that "No mitigation is required."

Response 16.190

The commenter suggests adding a statement to Section 4.9, *Hydrology and Water Quality*, indicating that the Regional Water Quality Control Board (RWQCB) is in the process of re-examining the impairment of waterbodies in the watershed, as well as the underlying causes of



impairment. The Central Coast RWQCB was contacted regarding the impairment status of the Cholame Creek watershed. Based on this inquiry, the discussion of impairment of the Cholame Creek watershed in Section 4.9, *Hydrology and Water Quality*, has been updated as follows:

The waterbodies in the Cholame Creek Watershed are impaired ~~due to~~
~~exceedance of~~ with high levels of boron, chloride, fecal coliform, sodium, and
~~water quality objectives and United States Environmental Protection Agency~~
~~(USEPA) recommended criteria for *E. Coli*, low levels of dissolved oxygen, and~~
electrical conductivity outside of levels supporting healthy fisheries (Hamilton,
Personal Communication, October 28, 2014). Fecal coliform are shed by all warm-
blooded animals including humans, pets, livestock, birds, and other wildlife.



| Habitat Types | Total Project Impact Area | | Access Road | | project site | | Utility Corridor | |
|--|---------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Permanent Impacts | Temporary Impacts | Permanent Impacts | Temporary Impacts | Permanent Impacts | Temporary Impacts | Permanent Impacts | Temporary Impacts |
| <u>Agricultural</u> | <u>0.06</u> | <u>0.63</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0.06</u> | <u>0.63</u> |
| <u>Alluvial Intermittent Stream</u> | <u>0</u> | <u>0.1</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0.0</u> | <u>0</u> | <u>0.1</u> |
| California Annual Grassland | 1674.95 | 346.87 | 3.88 | 32.41 | 1670.43 | 306.27 | 0.64 | 8.19 |
| <u>Cottonwood Alluvial Riparian Woodland</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |



RWQCB staff also noted that a total maximum daily load (TMDL) has been approved for fecal indicator bacteria in Cholame Creek. To reflect this information, the following modification has been made to the description of the *Federal Clean Water Act* discussion in Section 4.9.2(d) (Regulatory Setting) of Section 4.9, *Hydrology and Water Quality*:

The Central Coast RWQCB has established and certified ~~a~~ TMDLs for boron in streams of the Estrella River Basin, ~~which was approved by the Board in~~ December 2013 and for fecal indicator bacteria in the Cholame Creek Watershed in May 2011 (CCRWQCB, 2014).

Although RWQCB staff are in the process of reviewing recent data and providing updated recommendations on the impairment of water bodies, staff are not aware of any new data from Cholame Creek included in this assessment and therefore do not anticipate any changes to the current listed impairment for Cholame Creek (Hamilton, Personal Communication, October 28, 2014). Accordingly, the commenter's suggested textual addition has not been included in the FEIR.

As a result of this response, the following has been added to Section 8.1.2 (Agencies/Individuals Contacted) in Section 8.0, *References and Preparers*, of the DEIR:

Hamilton, Mary. Environmental Scientist. Central Coast Regional Water Quality Control Board. Email Communication. October 28, 2014.

Response 16.191

The commenter suggests the addition of language to Section 4.9.3(a) (Methodology and Significance Thresholds) of Section 4.9, *Hydrology and Water quality*, to indicate that the project includes APM-1 to address the potential environmental effects associated with project decommissioning. The discussion in question is intended to present the methodology for the analysis. The commenter-suggested language would more appropriately be located in the impact analysis. Therefore, the following modification has instead been made to the second to last paragraph under Impact HYD-1:

Decommissioning would be required to comply with the standards in place at the time of decommissioning, which are anticipated to be similar or more stringent than the requirements currently placed on construction activities. In addition, as described in Section 2.0, Project Description, the project includes APM-1 to ensure that potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.

Response 16.192

The commenter suggests that the discussion of Impact HYD-5 should reference an addendum to the Preliminary Drainage Report. In accordance with the commenter's suggestion, the following text has been added to the first paragraph under Impact HYD-5 in Section 4.9, *Hydrology and Water Quality*:



The *California Flats Solar Project Preliminary Drainage Report* (RBF, 2013) included a preliminary hydraulic analysis to determine potential flood hazards relating to flow depths and velocities throughout the project site. The *Preliminary Drainage Analysis Addendum* (Wallace Group, 2014) provided additional review and recommendations regarding flood hazards, and included the private access road in the review...

Response 16.193

The commenter provides a new biological report covering the proposed project site: HT Harvey & Associates, Results of the 2013 Scent Dog Surveys, California Flats Solar Project, January 2014. This report was not previously received or reviewed by the DEIR consultant. This report has been reviewed as necessary to respond to specific comments that cite the report. This comment does not specifically address the DEIR. Therefore, a specific response to this comment is not feasible.

Response 16.194

The commenter provides a new biological report covering the proposed project site: Western EcoSystems Technology, Inc., California Flats Solar Project, 2014 Eagle Nest Survey Report, August 12, 2014. This report was not previously received or reviewed by the DEIR consultant. This report has been reviewed as necessary to respond to specific comments that cite the report. This comment does not specifically address the DEIR. Therefore, a specific response to this comment is not feasible.

Response 16.195

The commenter provides a new biological report covering the proposed project site: Western EcoSystems Technology, Inc., California Flats Solar Project, Eagle Use Survey Interim Report, March 10- June 2014, September 5, 2014. This report was not previously received or reviewed by the DEIR consultant. This report has been reviewed as necessary to respond to specific comments that cite the report. This comment does not specifically address the DEIR. Therefore, a specific response to this comment is not feasible.



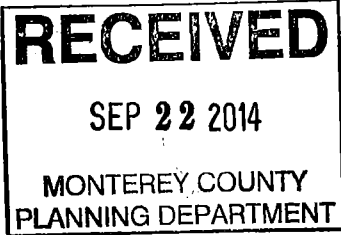
Letter 17



Greg Parker, Principal
Land Planner
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Office: (559) 263-5238
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September 22, 2014



Delinda Robinson
Monterey County Resource Management Agency
Planning Department
168 W. Alisal St., 2nd Floor
Salinas, CA 93901
Phone: (831) 755-5198

RE: Comments on the Draft Environmental Impact Report for the Proposed California Flats Solar Project (PLN120294; SCH#2013041031)

Dear Ms. Robinson:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the California Flats Solar Project. While the County does not have approval authority over PG&E's facilities associated with the project, which are under the sole discretionary jurisdiction of the California Public Utilities Commission (CPUC), the County's DEIR properly includes an assessment of the direct and reasonably foreseeable indirect physical changes resulting from the solar generating facility, including the switching station and related construction along PG&E's existing Morro Bay-Gates 230 kV transmission line.

PG&E has completed, and is in the process of completing, further engineering work on the interconnection facilities, including the power line as well as the switching station and related facilities that PG&E will ultimately own, and is providing the following updates to the information contained in the DEIR related to PG&E facilities. These additional updates provide specific design details and features, and are within the scope of the PG&E facilities description and related analysis set forth in the DEIR.

17.1

Switching Station. As indicated in the DEIR, the project will require a switching station, which will cover approximately 6 acres, and will connect to the Morro Bay-Gates 230 kV transmission line for transmission to California Independent System Operator (CAISO) transmission system. This switching station will be constructed by California Flats Solar, LLC (CFS) and may be purchased by PG&E upon completion of the switching station to PG&E standards. In addition, CFS will install approximately eight-foot chain link fencing topped with barbwire around the perimeter of the new switching station to provide security fencing for the facility.

17.2

Transmission Line (T-Line) Construction: PG&E will need to reconfigure the Morro Bay-Gates 230 kV transmission line to accommodate the California Flats Solar project, and will construct approximately five to seven steel monopole structures or lattice structures approximately 130

17.3

feet high to connect the transmission line to the proposed CFS switching station. The actual size and location of the tower line reconfiguration will be determined upon final engineering, but will be located within the project study area analyzed in the DEIR. 17.3

Temporary Shoo-fly Line: A shoo-fly line is a temporary line built to allow changes to be made to existing lines. PG&E will need to install a temporary shoo-fly to support the Templeton Gates 230 kV circuit when reconfiguring the PG&E Morro Bay-Gates 230 kV line. This shoo-fly will require approximately ten wood poles, which will be removed upon securing the interconnection to the switching station (typically 3-6 months). The actual size and location of the shoo-fly reconfiguration will be determined upon final engineering, but will be located within the project study area analyzed in the DEIR. 17.4

Trenched Fiber Line: CFS will install two trenched fiber line conduits from the switching station to the PG&E Morro Bay-Gates 230 KV line within the project study area in the vicinity of the T-Line. PG&E will construct a switching station fiber tap and the fiber tap located on the PG&E Morro Bay-Gates 230 KV transmission line. The fiber lines are needed for electric system protection. 17.5

Decommissioning: The DEIR states that the PG&E facilities will be decommissioned along with the California Flats Solar Project once it has reached its useful life. This is not correct. PG&E facilities will not be decommissioned at the end of the useful life of the California Flats Solar project, but will remain associated with the Morro Bay-Gates 230 KV line. As a result, references to decommissioning of the proposed project should not include the PG&E facilities. 17.6

CPUC Permitting: The DEIR states that the PG&E facilities are subject to a separate discretionary review process through the CPUC. To clarify, although it is true that the CPUC has discretionary authority over PG&E's project and could require discretionary permitting for PG&E's interconnection facilities in this case, the project appears likely to qualify for an exemption from formal permitting. If exempt, PG&E would comply with a noticing process under the CPUC's General Order 131-D that affords CPUC review and public comment, but not a discretionary approval. As a responsible agency, the CPUC will be given the opportunity to review the CEQA document to confirm whether impacts associated with the PG&E facilities are less than significant and whether the interconnection work qualifies for exemption from the formal permitting requirements in order to determining whether a discretionary permit will be needed. 17.7

Mitigation Measures: CFS will construct the switching station and will implement all of the mitigation measures related to the proposed project, including construction of the switching station, which ultimately may be owned and operated by PG&E. The remaining portions of PG&E's interconnection facilities (T-line and shoo-fly) will be constructed by PG&E. While the County of Monterey does not have siting, design or construction authority over PG&E's electrical facilities or jurisdiction to impose mitigation measures on PG&E for facilities it constructs, PG&E will incorporate applicant-proposed measures and standard construction best management practices (e.g., temporary erosion control, worker educations, staging construction equipment outside of sensitive resource areas, etc.) into the T-Line and shoo-fly construction consistent with the measures established in the DEIR. These measures would be comparable in nature to the measures described in the DEIR to avoid or minimize potential impacts associated with project construction. 17.8

As indicated above, the CPUC has exclusive jurisdictional authority over the siting, design and construction of PG&E's facilities. Accordingly, all plans referenced in the mitigation measures that will be subject to review and approval by Monterey County will be submitted by CFS only. PG&E would not be subject to County inspection and or notification for the installation of PG&E facilities. As a final note, we anticipate that CFS will be implementing all avoidance and minimization measures associated with the construction of the project, including biological monitors and pre-construction surveys for the whole of the project, which would include the PG&E facilities.

17.9

It appears that the DEIR adequately evaluates potential environmental effects of PG&E's interconnection work and supports the conclusion that the environmental effects associated specifically with PG&E's facilities (the switching station, the T-Line and the shoo-fly), which cover approximately 7.5 acres (approximately 6 acres for the switching station and approximately 1.5 acres for the T-Line) of the approximately 2,720-acre solar project, will not be significant. The County's confirmation of this fact would assist PG&E in efficiently complying with the CPUC permitting requirements.

17.10

Thank you for the opportunity to provide these comments.

Sincerely,

Greg Parker
Principal Land Planner, Environmental Planning and Permitting

Letter 17

COMMENTER: Greg Parker, Principal Land Planner, Environmental Planning and Permitting, Pacific Gas and Electric

DATE: September 22, 2014

Response 17.1

The commenter states that PG&E is completing further engineering work on the interconnection facilities for the proposed project, including the power line as well as the switching station and related facilities that PG&E will ultimately own, and is providing updates on the specific design details and features of these facilities. This comment is acknowledged.

Response 17.2

In addition to the DEIR's description of the proposed switching station, the commenter states that the project applicant will install approximately eight-foot chain link fencing topped with barbwire around the perimeter of the new switching station to provide security for the facility. The discussion of the PG&E switching station in Section 2.0, *Project Description*, has been updated as follows to reflect this information (refer also to response 17.3). It should also be noted that PG&E submitted a supplemental letter on October 28, 2014, clarifying that the transmission structures would be 140 to 150 feet in height, rather than 130 feet (refer to Appendix P). The following text has also been modified to reflect this change:

PG&E Switching Station. Near the location of the proposed northern substation, the project proponent would also construct a new 230kV interconnection switching station that would provide an interconnection to the existing Morro Bay-Gates 230kV transmission line and would be owned and operated by PG&E. The PG&E-owned switching station would include an approximately six to eight foot chain link fence with barbwire for security, electrical equipment and control building, and ~~two to four~~ five to seven transmission structures approximately ~~130~~ 140 to 150 feet in height to reroute the existing 230 kV transmission line into the new switching station.

Response 17.3

The commenter notes that PG&E will need to reconfigure the Morro Bay-Gates 230kV transmission line to accommodate the proposed project, and will construct approximately five to seven steel monopole structures or lattice structures to connect the transmission line to the proposed switching station. The second paragraph of the *On-Site Substations* discussion and the *PG&E Switching Station* discussion in Section 2.0, *Project Description*, has been updated to reflect this information. It should also be noted that PG&E submitted a supplemental letter on October 28, 2014, clarifying that the transmission structures would be 140 to 150 feet in height, rather than 130 feet (refer to Appendix P). The following text has also been modified to reflect this change:

The substations areas would be improved with compacted materials and concrete pads to support electrical equipment and supporting infrastructure. The substations



structures would range in height from approximately 20 to ~~90~~ 130 feet, as shown in Figure 2-7a**b**. Security fencing consisting of six to eight foot chain link fencing with barbwire would be installed around the perimeter of the new substations.

Approximately ~~three to five~~ to seven steel monopole structures or lattice structures would be constructed between the northern substation and the PG&E Switching Station (described below) to tie the project into the PG&E system. These poles would be approximately ~~130~~ 140 to 150 feet in height.

PG&E Switching Station. Near the location of the proposed northern substation, the project proponent would also construct a new 230kV interconnection switching station...The approximately ~~Three to five~~ to seven steel monopole structures or lattice structures that would be constructed between the northern substation and the switching station would be approximately ~~130~~ 140 to 150 feet in height,as shown in Figure 2-7b. PG&E would be responsible for inspecting and maintaining the switching station.

It should be noted that the addition of more monopole or lattice structures, and the increase in height of those structures, is not anticipated to result in greater aesthetic impacts. As noted in Section 4.1, Aesthetics, the nearest sensitive receptors are two residences located approximately 775 feet north of the project site. In addition, the only public right-of-way from which the project site is visible is the end of Turkey Flat Road, near these residences. The PG&E switching station would be located on northern end of the 230 kV overhead transmission line corridor, in the central portion of the site (refer to Figure 2-4a in Section 2.0, Project Description). These facilities would not be visible from these residences or any public right-of-way.

Refer also to response 16.162.

Response 17.4

The commenter states that PG&E will need to install a temporary shoo-fly line to support the Templeton Gates 230 kV circuit when reconfiguring the PG&E Morro Bay-Gates 230 kV line. This shoo-fly would require approximately ten wood poles, which would be removed upon securing the interconnection to the switching station (typically 3-6 months). The discussion of PG&E's switching station in Section 2.0, *Project Description*, has been updated as follows to reflect this information:

When reconfiguring the PG&E Morro Bay-Gates 230 kV line, PG&E also would need to install a temporary shoo-fly line to support the Templeton Gates 230 kV circuit. This shoo-fly would require approximately ten wood poles, which would be removed.

Further, it should be noted that the temporary shoo-fly line and other new facilities that PG&E would install would not result in new environmental impacts because these facilities would be located within the solar development area, which the DEIR analyzed as a whole, and would not enlarge the overall footprint of the switching station.



Response 17.5

The commenter notes that the project applicant will install two trenched fiber line conduits from the switching station to the PG&E Morro Bay-Gates 230 kV line within the project site in the vicinity of the T-Line. The commenter adds that PG&E will construct a switching station fiber tap and a fiber tap located on the PG&E Morro Bay-Gates 230 kV line. The description of the PG&E switching station in Section 2.0, *Project Description*, has been updated as follows to reflect this information:

A relay station would be constructed within an existing disturbed area to provide microwave relay to the Gates substation. In addition, the project applicant would construct two trenched fiber line conduits approximately 200 feet of underground fiber would be constructed from the switching station to a Morro Bay-Gates 230kV transmission line tower to connect to the optical ground wire on that transmission line tower to provide a communication path to the Gates substation.

Further, it should be noted that the fiber line conduits and other new facilities that PG&E would install would not result in new environmental impacts because these facilities would be located within the solar development area, which the DEIR analyzed as a whole, and would not enlarge the overall footprint of the switching station.

Response 17.6

The commenter clarifies that PG&E facilities would not be decommissioned along with other project facilities at the end of the project's useful life, but would remain associated with the company's Morro Bay-Gates 230 kV line. The discussion of decommissioning in Section 2.0, *Project Description*, has been updated as follows to reflect this correction:

Overhead electrical collection lines, poles and associated components would be disassembled and removed, and reprocessed, sold, salvaged or otherwise disposed of in an appropriate manner. PG&E facilities constructed in association with the proposed project would not be decommissioned, but rather would remain associated with the Morro Bay-Gates 230 kV line.

Response 17.7

The commenter provides a clarification that although the California Public Utilities Commission (CPUC) has discretionary authority over PG&E's project and could require permitting for PG&E's interconnection facilities, the project appears likely to qualify for an exemption from formal permitting. If exempt, the commenter adds that PG&E would comply with a noticing process under the CPUC's General Order 131-D that affords CPUC review and public comment, but not discretionary approval. This comment is noted. Consistent with this comment, DEIR Section 2.0, *Project Description*, states that the proposed project may require a discretionary permit from CPUC authorizing construction of the switching station.



Response 17.8

The commenter states that the County of Monterey does not have siting, design, or construction authority over PG&E's electrical facilities for the proposed project, including the T-line and shoo fly, and does not have jurisdiction to impose mitigation measures on PG&E for facilities it constructs. Nevertheless, the commenter says that PG&E will incorporate applicant-proposed measures and standard best management practices for construction (e.g., temporary erosion control, worker education, staging construction equipment outside of sensitive resource areas) into construction of the T-line and shoo-fly, consistent with measures established in the DEIR. This comment is noted. As discussed in DEIR Section 2.0, *Project Description*, the applicant would be responsible for constructing the switching station, and PG&E would own and operate the facility.

Response 17.9

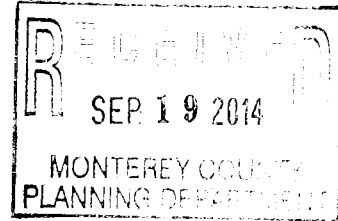
The commenter states that PG&E would not be subject to County inspection and/or notification for the installation of PG&E facilities. PG&E also anticipates that the project applicant would implement all mitigation measures associated with the project, including biological monitors and pre-construction surveys, for the whole project including the PG&E facilities. This comment is noted.

Response 17.10

The commenter concludes that it appears that the DEIR adequately evaluates the potential environmental effects of PG&E's interconnection work. The commenter adds that the DEIR adequately supports the conclusion that these environmental effects would not be significant. This comment is acknowledged.



Letter 18



From: Van Boxtel Family
Sent: Thursday, September 18, 2014
TO: Delinda Robertson
Monterey County Resource Management Agency
168 W. Alisal Street 2nd Floor
Salinas, California 93901

E-Mail – CEQAcomments@co.monterey.ca.us

Enclosed, please find our comments to the DEIR PLN 120294 California Flats Solar Project with one enclosure (The Expose'). We are sending this U. S.Mail. Also letter sent by e-mail to above e-mail address w/o enclosure.

Thank you for your consideration.

W. J. Van Boxtel

90681 Turkey Flat Road, San Miguel, California 93451

805-463-2500-----rosevan36@gmail.com

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Nowhere in America is a non-participant (the Van Boxtel Family) so negatively impacted by a solar field as we will be.

PREFACE

This pleading and the reasoning on subject matter found under the Table of Contents will expose the impacts the approval of the California Flats Solar project will have on us, the Van Boxel Family and its ranch holdings. A consideration of the agencies will hopefully address the financial impacts of diminished property value both short and long term.

The negative environmental effects, emotional, visual and economic impacts resulting from the possible agency approval of the California Flats Solar project are real and have been felt since 2012 when we were informed of its consideration. For the past two years we have been trying to live with the possibility that our visual and economic world may be drastically altered forever.

18.1

There is no way to mitigate for approximately 2500 acres of metal, glass, buildings and overhead power lines built literally in our front yard. The solar field is right in the center of a 13,000 acre grass valley. The solar field footprint ranges from 2.9 miles wide to 8.7 miles long. Open space, supposedly of human value, and supposedly protected by Agricultural zoning, yet obviously disposable for speculative causes. The footprint of the proposed solar field covers all of the flattest areas of thirteen directly affected sections of land. We enclosed a reduced map of the proposed solar field. Evidence exists that it's the same habitat the Yokut and Salinas Indians resided on for hundreds of prior years. The footprint of their wigwams is still evident along some of the many creeks that run through the property.

Neither trees nor fencing, both very limited in height, can begin to shield our view from our residences on the ranch from 100 to 3600 feet above the development. The solar field view from our south facing ranch is 8.25 miles wide by 3 miles to the north. A total of 6,720 acres with elevations ranging from 100 feet to 3600 feet, above the solar field.

18.2

Entering and leaving our ranch we will have to drive past over 3000 lineal feet of solar panels, just mere feet off our driveway.

In summary, it would seem to be within the purview of Monterey County regulatory agencies to exact financial mitigation for the solar fields negative financial and visual impacts, both long and short term. As we see it, it's going to cost us millions of dollars of lost financial value. That, while the developers and future owners and operators make a gigantic profit.

18.3

**

1) THE SITE

From a personal, multi-generational family standpoint, the California Flats Turkey Flat valley is our open space which is highly revered. Our main residence and two other family houses are

18.4

designed to capture the beauty and serenity of the subject valley. The main house has over 350 square feet of glass doors and windows overlooking the Flats, giving us valley views from almost the entire house. The residences look down on the entire project, every panel. The main residence is 100 to 300 feet above the solar panels making them all visible. From other locations on the ranch up 1200 feet above the solar panels it will look like a black glass lake on aluminum posts over laid by power poles.

18.4

Reference the "Contrary Exposé in the binder attached with biological, Indian culture and other background information. The exposé's were provided to the Monterey County Planning Department in early 2013 to give them a feeling for our dilemma.

18.5

Once the valley has been mutilated, covered with solar panels, there is no going back. The solar field is estimated to remain operational for 30 to 40 years. There is every reason to believe it will be replaced when obsolete, for them to sell to agencies will be simple, a valley with no redeeming emotional or environmental value, only a metal and glass junk yard that can be replaced by an updated but still infeasible new solar field. Yes, once this naturally, beautiful valley has been degraded, it will remain so forever. There is no physical mitigation for the negative, visual and economic, impacts the eradication of this beautiful valley will have on our family's lives, forever. To us, the visual open space, natural beauty of the California Flat, Turkey Flat Valley, is at the heart of why we are here, on the Oropesa Ranch.

18.6

An adjunct impact of the solar field is the negation of our Make-A-Wish fishing pond and campground a mere 10 feet from the northwest corner of the proposed solar field property. I cannot envision trying to justify bringing handicapped children to a site that is visually impacted by a metal and glass, industrial field, crisscrossed with power lines.

If you begin to rationalize where to place an unmitigated industrial site, why wouldn't the vast California deserts, with high voltage transmission lines running in every direction come to mind? Millions of acres open to unrelenting sunshine almost every day of the year, no fog, no haze and most importantly, no people to be adversely impacted. The monotonous, endless rows of panels, all facing south, the construction noise and dust impacts no one. There are supposedly less valley fever and anthrax spores in the desert so the dust will travel miles to the south over unoccupied desert

18.7

So what about the specific site at California Flats. All of the above impacts are present including spores causing valley fever. People, near and distant, will experience the degradation of their environment and lie in the pathway of the northerly wind-driven dust as far away as Paso Robles, Atascadero and San Luis Obispo.

The proposed site is a pristine, natural open space valley as it was for the Yokut and Salinas Indians hundreds of years in the past. Open space was considered to have human value in the

18.8

past with the enactment of the Williamson Act during the 1960's, later came the scenic highways and save the natural environmental movements. According to the U. S. Department of Energy and printed in the Wall Street Journal and exposé by Leslie Stahl of 60 Minutes Television on Jan. 5, 2014, 20/20 and Fox News Megan Kelly, all exposing the failures of government, erroneous leadership and misinformation that has supported failing businesses, failed concepts and theories and billions of dollars in bad loans and subsidies, make for an unthinkable picture of waste. Accordingly the cost of solar energy approaches four (4) times as much as fossil fuels.

18.8

In California, with the legislature's mandate that 33 percent of electric energy must come from renewable sources, that mandate along with the cost of tax payer subsidies and utility company subsidies, paid directly to the utilities company via higher rates, the real cost of renewable energy could be in excess of five times what fossil fuels could provide us.

**

2) ENVIRONMENTAL ISSUES

Environmental concerns must address human, animal, bird and plant issues such as health, water, dust, and noise disturbances of the status quo whether it be soil, water courses, trees or vegetation in general. Solar panels, particularly in vast numbers, will raise the temperature above the panels and to some degree laterally whenever the sun shines. As discussed in Section #1, THE SITE, dust and therefore the diseases potential of dust laden with valley fever and anthrax spores is of great concern. San Luis Obispo County experienced a sharp increase in valley fever cases during the construction phase of the Carissa Plains Topaz solar project. They will definitely see additional upswings in reported cases when northerly winds get compressed by the inductive louver effect of the panels which will literally scoop up the spore laden dust that will be delivered far to the south of the Topaz facility. California flats solar will duplicate that hazard.

18.9

The abnormal use of water and draw down of the valley aquifers may be devastating to our aquifers. No one really understands the hydraulics of aquifers.

18.10

It is of great concern to us that the dust problem for the two year process of construction may be so hazardous to our health that we may have to physically leave the ranch residences. The prevailing winds in the valley are from the west and southwest. However, the valley experiences winds from all directions, notably the south. Winds from the south and southwest are problematic. The noise issue of growling heavy equipment cannot be mitigated so it will make our lives miserable for the two year construction phase also.

18.11

The draft EIR addresses the endangered, threatened and animals of special concern and birds. After fifteen years of operating and shepherding our ranch land and species, we are very concerned that the welfare of all wild species is being protected. We have not just tolerated the animals and birds, we have been pro-active in an effort to protect and enhance their populations. Our populations of endangered and threatened species are linked physically to the respective populations on the solar site.

18.12

The effort to convert a magnificent scenic valley to an industrial junk yard is irrational, uneconomical and the national farce of the 21st century. It's like a train, owned by Warren Buffet, paid for by American taxpayers, rolling down the tracks with seemingly no rational way to stop a totally irrational concept.

18.13

Suppose that Americans economic follies continue and we spend ourselves out of existence, gone broke. All the irrational environmentalists, who almost worship a climate change (there is no proof it exists) because it helps push their agenda for green energy at the expense of taxpayers.

**

3) VISUAL IMPACTS

Some negative impacts of the California Flats Solar Field have already been vented in the site discussion. I will elaborate and perhaps repeat some of the impacts to codify the visual impact rationale. A previously constructed verbal and pictorial presentation prepared in early 2013 and a copy presented to the Monterey County Planning Department is enclosed herewith. Appendix "A" to the Draft Environmental Impact Report (DEIR) includes a few pages of that presentation named "A Contrary Exposé in opposition to the proposed California Flats Solar Field.

In the spiral-bound presentation booklet, we have included numerous 8 ½ x 11 photographs of the solar field site as it exists today. Some of the photographs have been "doctored" to show the outline or footprint of the proposed solar field. The real relevance of the pictures is self evident. Photos taken of the proposed site from our residence reveal the impacts the field would have on us and our family ranch. The fact that our residences are above the entire proposed solar field will give us an almost birds-eye view of the entire facility. I state again, there is no physical way to mitigate for the devastation of a view that comes from a minimum of 100 feet to as much as 300 feet at the east end of the proposed project. You may respond without thinking; plant trees. Imagine planting perhaps a thousand or more 100- foot tall trees. Anything less will take 30 years to partially obscure the field of panels, buildings and power lines.

18.14

Leafing through the presentation booklet you will note such facts, as we border on the subject site for 8.25 miles. Our ranch is on a south-facing slope making it possible to see from 4000 acres of the ranch, the entire Cholame Valley which includes California Flats and including seeing Highway 46 and Cholame Valley Road.

18.14

The ranch vistas will be transformed from a Wyoming big sky, mountain valley view, to looking down on a 2000 plus acre man-made glass and metal aesthetic catastrophe, gone will be the heart of the valley's lowlands, creeks and ponds that is the hatchery for a vast number of endangered, threatened or species of special interest. It is not just us, they too will be forever negatively impacted. There is an old saying, "we don't get sick, we make ourselves sick".

**

4) ECONOMIC IMPACTS

We have touched on the intrinsic lack of the feasible economics of solar energy in earlier areas. It is an economic square pig in a round hole.

Here we will try to illustrate (expose) the financial catastrophe a solar field would have on us, the Van Boxtel multi-generational family. We have asked a realtor and appraiser how to quantify the financial impacts a solar field in California Valley would have. Not surprising, they end up saying the same thing. There are no comparables to compare our case with. They know of no one on any solar project where there is the magnitude of impact we may experience if the project goes through. Almost all large commercial solar projects have occurred on a portion of land owned by a rancher living somewhat remotely from the solar field and all projects place the rancher's residence and ranch headquarter buildings on a level the same as the solar field. Therefore, the rancher is at eye-level with the solar field on essentially level ground. They are not looking down on the project as we are. The financial reward of a 30-year lease on a portion of their ranch makes the deal workable. The realtor suggests we would have to put the ranch on the market to find out what the current market value might be and you have to disclose that a solar field is in the process of possible approval. So what do you think its worth? A whole lot less than it was before you heard about the solar field.

18.15

The ranch was intended to be a forever family home whether we all live here at any one time is unimportant. When we have done what we set out to do in our youth or after college, the eventual home will always be the ranch.

That concept and promise is now in jeopardy. The ranch is still here but it will never be the same if the commanding view of the Cholame Valley, including the California Flats and Turkey Flat is not only removed aesthetically and physically, it may be replaced by an unsightly, inhuman conglomeration of millions of pieces of glass, metal posts and frames along with

attendant buildings, overhead power lines and poles and a surrounding stockade type fence. To humanize the solar field is beyond trees and fences. There is no way to mitigate or humanize the physical nature of the proposed solar field.

What are our financial impacts – staggering – not only for future value which will not appreciate enough to offset the annual and long term depreciation of the dollar; on average 2 to 3 percent per year.

18.15

If it is looked at as an investment, that it was, the return on investment (ROI) over the 30 or 40 year life of the solar field (maybe forever if it is replaced after 30 or 40 years), the ROI would likely be Zero. In other words we would be lucky to get our original, but depreciated, investment back less inflated depreciation. Our investment over time is dwindling yearly by the amount of depreciation (caused by inflation) of the American dollar and its purchasing power.

**

5) MITIGATION

Some things are physically unmitigated onsite. Some physically unmitigated impacts are the loss of view and visual impacts, and the real value of your property as a result of the negative impacts the solar field will have on the market value of our ranch and others experiencing impacts. Another is for off-site habitat “set aside” of land to permanently establish habitats where propagation and protection of threatened species can occur.

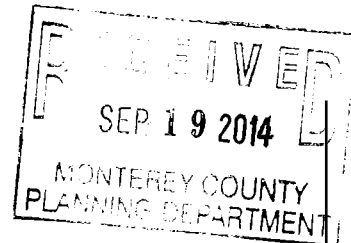
18.16

Physical mitigations that can be achieved by modifying procedures, setting aside like habit offsite. The DEIR properly addresses mitigations necessary to assist in the protection and propagation of endangered and threatened species onsite. It is assumed that under Monterey County’s, California Department of Fish and Wildlife and Federal Dept of Fish and Wildlife’s guidance and supervision, the special species will be protected and hopefully supplemented.

18.17

We, the Van Boxtel Family Limited Partnership, can provide and if the project is approved in any form, we will seek to provide a conservation easement for the protection of the many endangered and threatened species for which the proponent will have to mitigate. We processed a conservation bank application for three years with the CDFW between 2010 and 2013 for numerous species including all the species identified by biologists in the DEIR for the solar site.

**



A CONTRARY EXPOSE'

IN OPPOSITION OF THE

PROPOSED CALIFORNIA FLATS SOLAR FIELD

A PRESENTATION OF MAPS, PHOTOGRAPHS AND WRITTEN RATIONALE BY THE HIGHLY IMPACTED OROPESA RANCH OWNED BY THE VAN BOXTEL FAMILY LIMITED PARTNERSHIP ON THE SOUTH- FACING SLOPE OVERLOOKING THE PROPOSED CALIFORNIA FLATS SOLAR FIELD. THE OROPESA RANCH BORDERS ON 8.5 MILES OF JOINT PROPERTY LINE ON TWO SIDES OF THE PROPOSED PROJECT.

18.18

VAN BOXTEL FAMILY LIMITED PARTNERSHIP

90681 Turkey Flat Road

San Miguel, California 93451

805-463-2500

W. J. & R. S. VAN BOXTEL, General Partners

INTRODUCTION

We, W. J. and ROSEANN S. VAN BOXTEL, as General Partners of the Van Boxtel Family Limited Partnership, present herewith the following collection of maps, photographs and written exposes' on the impacts the proposed California Solar Flats will have on us, our extended families and descendants. The following Table of Contents sets out the categories of NEGATIVE impacts.

The industrialization of the pristine, sculptured pasture land of the California Flats, also known as Turkey Flats, and all parts of the Cholame Valley should be unthinkable to the Master Plan framers and future planners who established and are responsible for the preservation of the rangeland of southern Monterey county as open space F-160 (one residential living unit per 160 acres of open space).

In 1999 when we built a new house on our ranch, the Monterey County Building Dept. wanted assurances that the house would not be visible to neighbors or road traffic. The proposed solar field is in the center of a 20,000- acre meadow, where anyone and everyone for miles in all directions can look down on and see the 2675 acres of black glass panels.

We, our family and friends will be able to see every square inch of the panels every daylight hour for the thirty-year life of the solar field.

VISUAL AND EMOTIONAL IMPACTS: The visual and emotional impacts on our way of life will be gigantic. Our three residences are oriented to oversee the Cholame Valley. The close-up view of the California Flats area lies mere feet from our ranch headquarters building and area. You might say within a stone's throw. Overlooking 3000 acres of metal frames and black glass that is the industrial nature of a solar field will be an ominous ever- presence condition. The impractical, uneconomical, financially infeasible ink- spill design almost 9 miles long and varying in width to almost 3 miles wide is an abortion to say the least. Reference Map A under Index A. Square or rectangular structural designs are always the most economical and efficient. The solar field is the absolute antithesis of good design. Sadly, we all know or should know that green energy is an economic farce.

FINANCIAL IMPACTS: The financial impacts will be unthinkable. As much or more than fifty percent of our ranch investment will be painfully severed. For the life of the solar field and perhaps its future replacement with a second and third solar project, we will lose our asset base and prevent us from borrowing operation funds in the future. Needless to say we will never be able to sell the ranch and recoup our investment as long as the solar cloud exists.

ENDANGERED AND THREATENED SPECIES HABITAT: Grading and leveling the entire solar field and its surrounding area will permanently destroy habitat of known endangered species. Reference Index E and Map C of the Oropesa Ranch Conservation Bank. Many of the species on the Oropesa are known to exist on the California Flats

RADIATED HEAT FROM PANELS: The prevailing winds on the Oropesa and California Flats is from the South and West. The radiant heat rising from the 3000-acre solar field will definitely increase the ambient heat level at the ranch headquarters area during the summer months. The increased heat level will affect our comfort level and also increase our air-conditioning costs.

18.18

STORM-WATER RUNOFF: Approximately 6700 acres of the Oropesa Ranch is on south-facing slopes. The heavy rain drainage from the hillsides all flows onto and across the California Flats solar field area. The proposed theory and design of the panels is to bridge over the creeks with the panel framework. There is great potential of framework failure and obstructed water flow and flooding. Reference Index D for a storm water assessment.

INDIAN CULTURES: Indian artifacts and remnants are in evidence over our entire ranch. Village sites, home sites, ceremonial sites with attendant arrowheads, spear blades, cooking and food processing tools abound. There are as many as one hundred food milling holes in large rocks, mortars, some with the pestles (pulverizing rock hammers), in the mortar holes. There is a large ceremonial site 30 feet north of the solar field property line on our ranch. A ten-foot diameter pit that remains full of ashes. Shortly after purchasing the ranch in 1994, Louis Medina, a Yohut Indian pointed the site out to us. We immediately fenced the sacred site to prevent defacement or destruction. Louis Medina frequented our ranch one a year for an 8 to 10 day walk about during which he mapped ancestor remnants and photographed relics. See Index F- Map G for one of his maps he drew in 2001. One of fourteen such maps he penned. Map G is the northwestern corner of the solar field. The Make-A-Wish pond and ceremonial site on our ranch is also shown.

The grading and disturbing of the entire solar field area's soil will forever destroy and bury all the Yokut Indian relics from hundreds of years prior to the arrival of homesteaders in the late eighteen hundreds. The Yokut Indians were a mixture of Salinas and Chumash Indians.

CONSTRUCTION DUST IMPACTS: Dust created during the grading and construction periods, at least one and a half years, will cause airborne dust laden with indigenous valley fever spores to drift over to our ranch, particularly the residence compound. The hazards are significant.

VISUALLY OFFENSIVE ILLUMINATION: There seems to be a propensity for developers and regulatory agencies to light up developments everywhere including remote natural environments, like the California Flats; call it the stadium syndrome. There are no stationary man-made lights in the entire Cholame Valley that destroy the views of the starry skies. We use motion detection exterior lights on our ranch in keeping with the beauty of nature even at night.

WILDLIFE HABITAT: Provision must be made to provide access routes to permit pronghorn antelope, tule elk and black bear to migrate from the foothills of the Oropesa to the Cholame Valley and Cholame creek. We have black bears most winters, antelope and elk primarily during the spring and early summer. Reference Exhibit #3, pronghorn antelope, 50 feet beyond the fence along our driveway and on the northwest corner of the proposed solar field.

Please review the attached maps and legend of indexed photos that help clarify our position.

Table of Contents

Index A

- (a) Vicinity Map
- (b) Site Plan Map A

Index B

- (a) Plate A, B, C, D, E, F
Current Photos, Existing Visuals, Photos taken from the Van Boxtel's home sites
- (b) Exhibit A, B, C, D
Photos taken from Turkey Flat Road, the entrance gate to the Van Boxtel's Ranch (Oropesa)

Index C

- Plate Ax, Bx, Cx, Dx
- Index B Plate A, B, C, D modified to simulate solar panels

Index D

- (a) Map B
Identifies creeks that run from the south facing slopes of the Oropesa Ranch onto the proposed solar field below. There are 10 such creeks.
- (b) SEC #1
A vertical section showing the grade changes from Table Mountain plateau to the solar panel valley below.
- (c) EXHIBIT #1
Shows the flooding course from creek entering the northwest corner of the proposed solar field area.

Index E

- (a) Map C
A map showing endangered species present and confirmed on the Oropesa Ranch. Many of the species are known to exist on the solar property.
- (b) Map C, Plate A and Ax
The Make-A-Wish fishing pond camp grounds with a wheel chair friendly floating dock and ramp. Its future use is sought if the solar field is built 10 feet to the south.

Index F

- Indian Artifacts and Remnants
Map G and Plate G identify residual remnants of early American culture.

Index G

- EXHIBIT #2 A Solar Proposal 2012
An economic analysis of the proposal for our section 33 barley field. As you can see the development is completely funded by U.S. taxpayers through subsidies and tax credits. The developers (promoters) are not concerned about the economics of the project because the reimbursements from government (taxpayers) are based on the percentage of costs. The owners, farmers, ranchers or industry look only to the bottom line which, in the case of Exhibit #2 is only .7% (a little over one half of one percent). The unfortunate tax payers, State and Federal, pay for the solar field but never own any part of it. In other words, the owners' neighbors are paying for the implementation of the solar field.

18.18

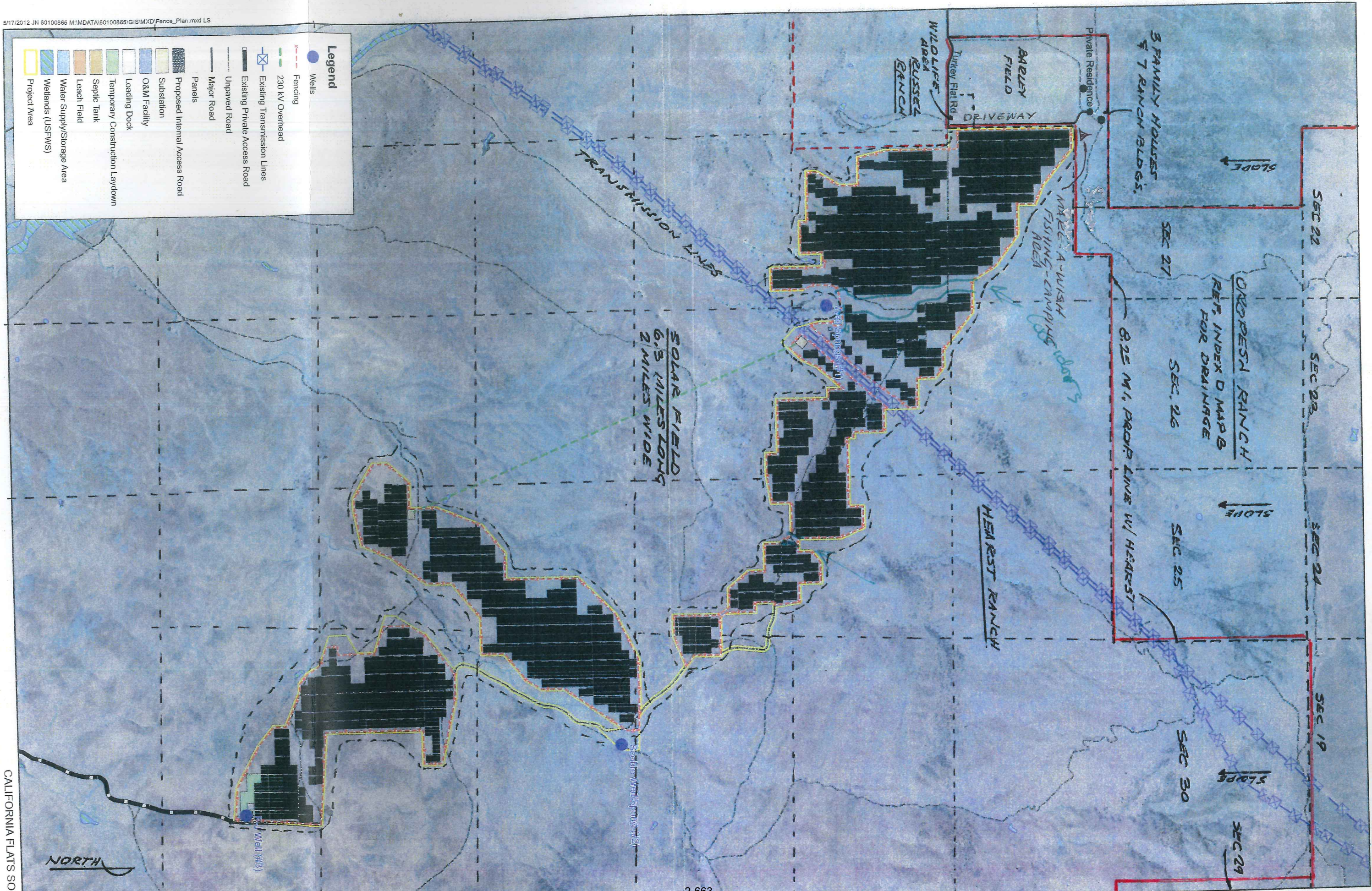
Index A

18.18

Vicinity Map
Map A
Solar Field Site Map

Legend

- Wells
- Fencing
- 230 KV Overhead
- Existing Transmission Lines
- Existing Private Access Road
- Unpaved Road
- Major Road
- Panels
- Proposed Internal Access Road
- Substation
- O&M Facility
- Loading Dock
- Temporary Construction Laydown
- Septic Tank
- Leach Field
- Water Supply/Storage Area
- Wetlands (USFWS)
- Project Area



SOLAR FIELD
6.3 MILES LONG
2 MILES WIDE

HEARST RANCH

OROPESA RANCH
REF. INDEX D MAP B
FOR DRAINAGE

8.25 M. PROP LINE W/ HEARST

TRANSMISSION LINES

WILDLIFE
AREA
RUSSEL
RANCH

DRIVEWAY

3 FAMILY HOUSES
& 7 RANCH BLDGS.

Private Residence

BARLEY
FIELD

MACE-A-WISH
FISHING-CAMPING
AREA

SLOPE

SLOPE

SLOPE

SEC 22

SEC 23

SEC 24

SEC 19

SEC 27

SEC. 26

SEC 25

SEC 30

SEC 29

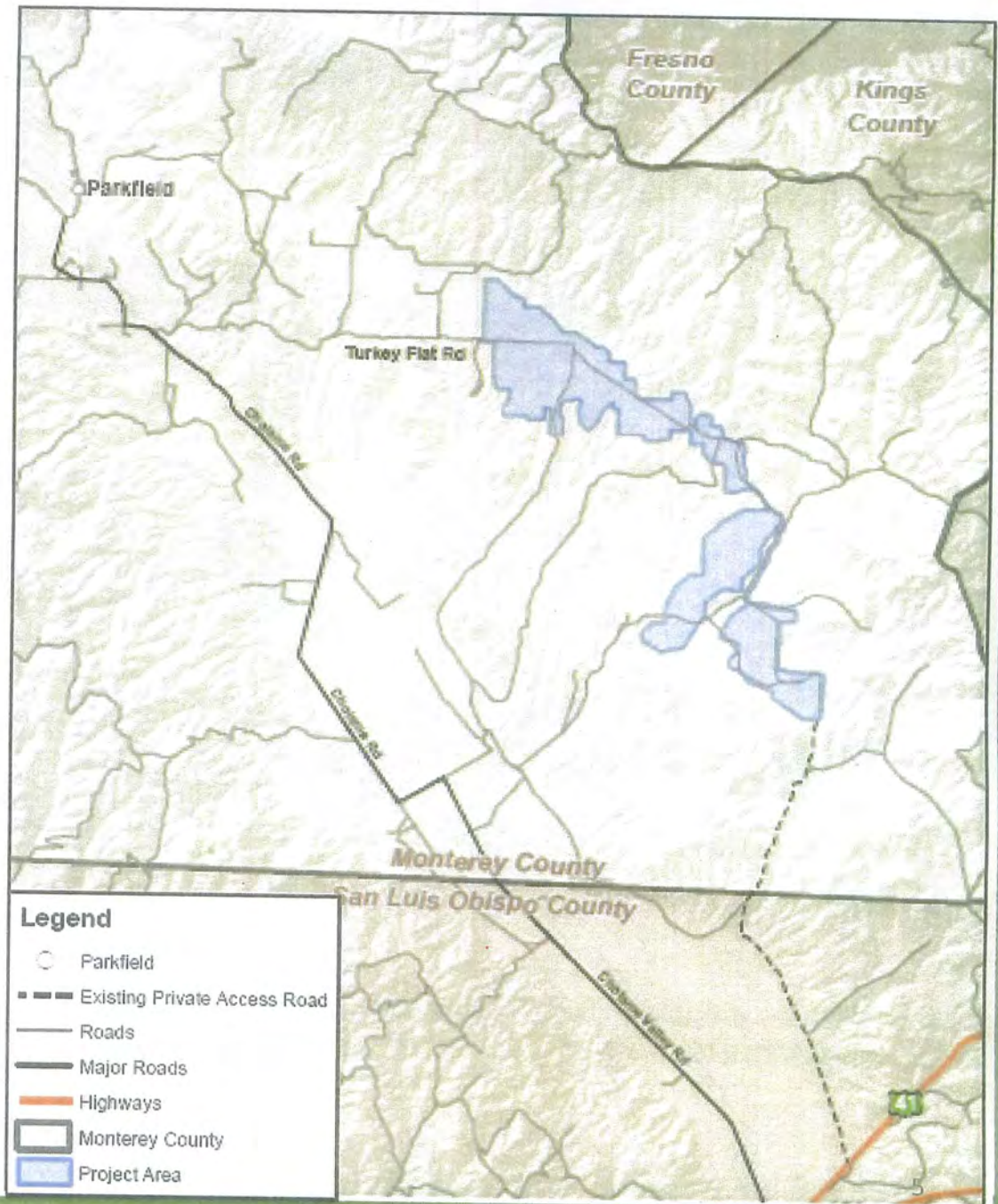
Well (783)

Well (783)

NORTH

California Flats Solar Project – Project Location

- 2,675 Acre site
- Southeast corner of Monterey County
- 7 miles southeast of Parkfield
- 25 miles northeast of Paso Robles
- Access from Highway 41 in San Luis Obispo County



Index B

CALIFORNIA FLATS VALLEY CURRENTLY

Plate A,B,C,D

A combined photo of Plates A, B, C, D

Plates A, B, C, D, E, F

West to East photos of current, existing landscape photos taken from Van Boxtel's residence area

EXHIBIT A -D

West to East photos taken from Van Boxtel entry gate on Turkey Flat Road.

18.18



SOLAR
PANELS

SOLAR
PANELS

EXISTING VIEW ²⁻⁸⁶⁶ OF SOLAR FIELD (PANELS) FROM VAN BOXTEL RANCH SEC. 34 COMBINES PLATES A-B-C-D



TURKEY FLAT ROAD
FIVE ACRE
WILDLIFE AREA
FENCED

VAN BOXTEL EXISTING VIEW

MAKE-A-WISH FISHING & CAMPING
WITH DOCK & CAMP SITES

PHOTO TAKEN FROM HOUSE PATIO SAME
VIEW FROM KITCHEN, DINING & LIVING ROOMS
SOLAR FIELD

PLATE A

SOUTH

2-667

#1



PLATE TO PLATES

MATCH PLATE "A"

VAN BOXTEL EXISTING VIEW
PHOTO TAKEN FROM HOUSE PATIO
LOOKING SOUTH OVER PROPOSED
SOLAR FIELD

PLATE B

South



SOLAR PANELS
MATCH PLATE B

↑
HEADS

VAN BOXTEL, EXISTING VIEW
PHOTO TAKEN FROM HOUSE PATIO
OUTSIDE MASTER BEDROOM.

PLATE C



MATCH PLATE E

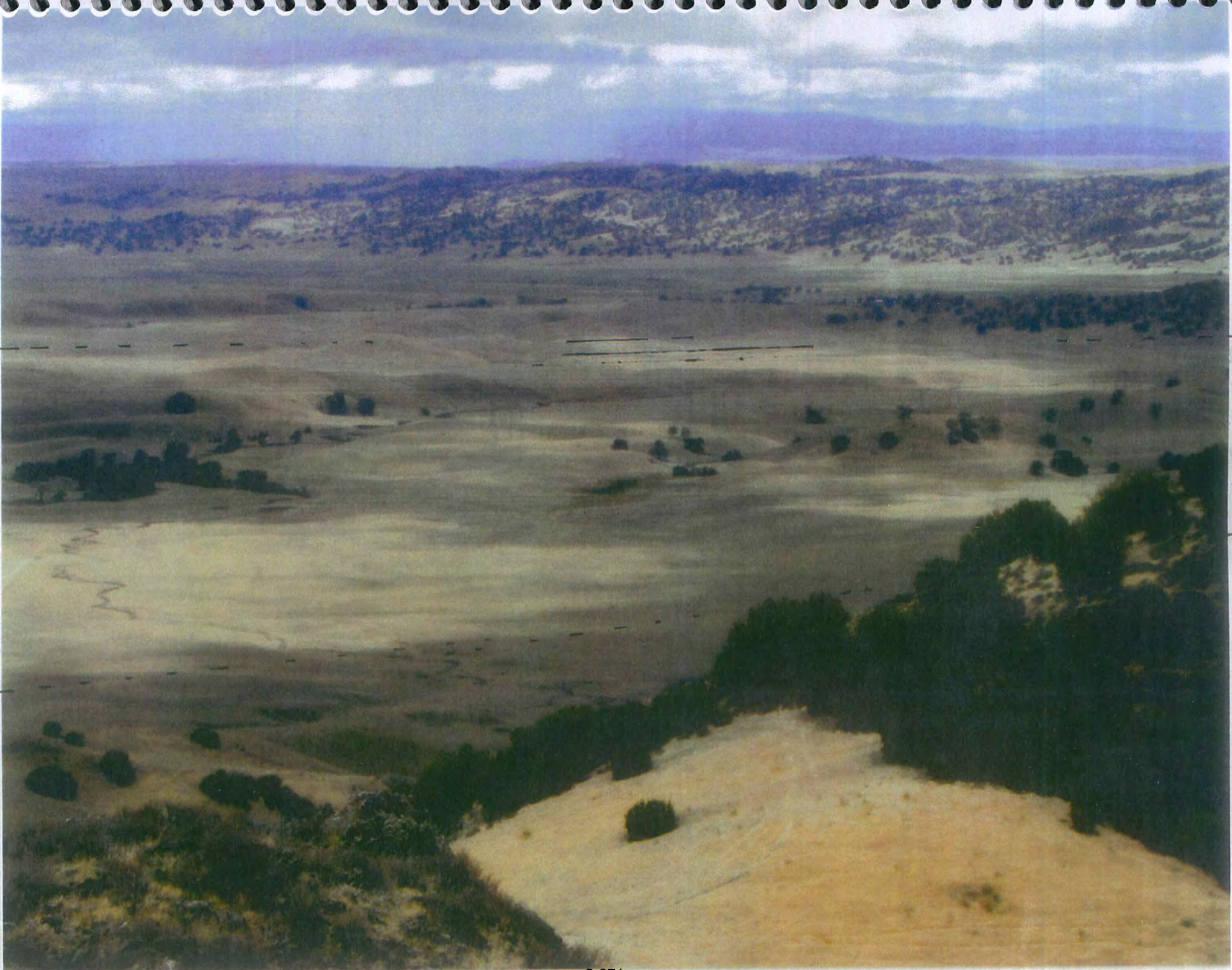
SOLAR PANELS

MATCH PLATE C

▲
N11025

VAN BOXTEL, EXISTING VIEW
PHOTO LOOKING SOUTH YARD OUTSIDE
MASTER BEDROOM

PLATE D



SOLAR PANELS

SOLAR PANELS

MATCH PLATE D

MATCH PLATE F
SOUTH

2-671

VAN BOXTEL RANCH, OVER PROPOSED SOLAR FIELD
FROM SEC 34 LOOKING SOUTH OVER CHOLAME VALLEY

PLATE E



SOLAR
PANELS
MATCH PLATE E

SOUTH

VAN BOXTEL, EXISTING ²⁶⁷² FLEW OVER CHOLAME VALLEY
LOOKING SOUTH FROM SECTION 26

PLATE F



VAN BOXTEL RESIDENCES (3)

(VAN BOXTEL'S ACCESS RD TO RANCH LAND)

MIKE-A-WISH POND AND CAMP GROUND

PROPOSED SOLAR FIELD REF. EXHIBIT B

FENCE IS ON JOINT PROP. LINE. VAN BOXTEL TO THE LEFT HEARS TO THE RIGHT

4 FEET

VAN BOXTEL DRIVEWAY

JOINS EXH. B

LOOKING NORTH FROM ENTRY GATE

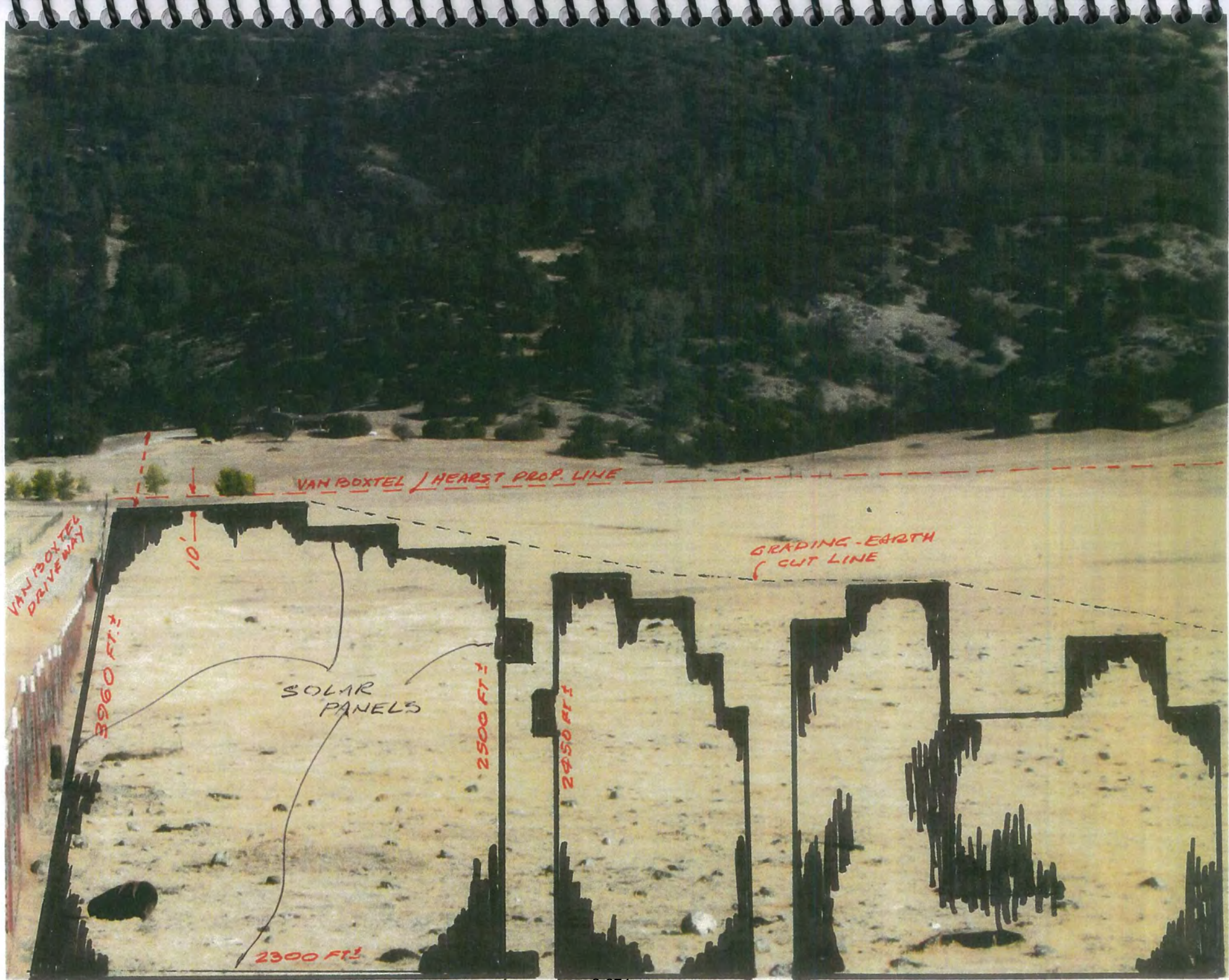
EXISTING VIEW

2-673

VAN BOXTEL ENTRY GATE

EXHIBIT A

JOINS EXH. A



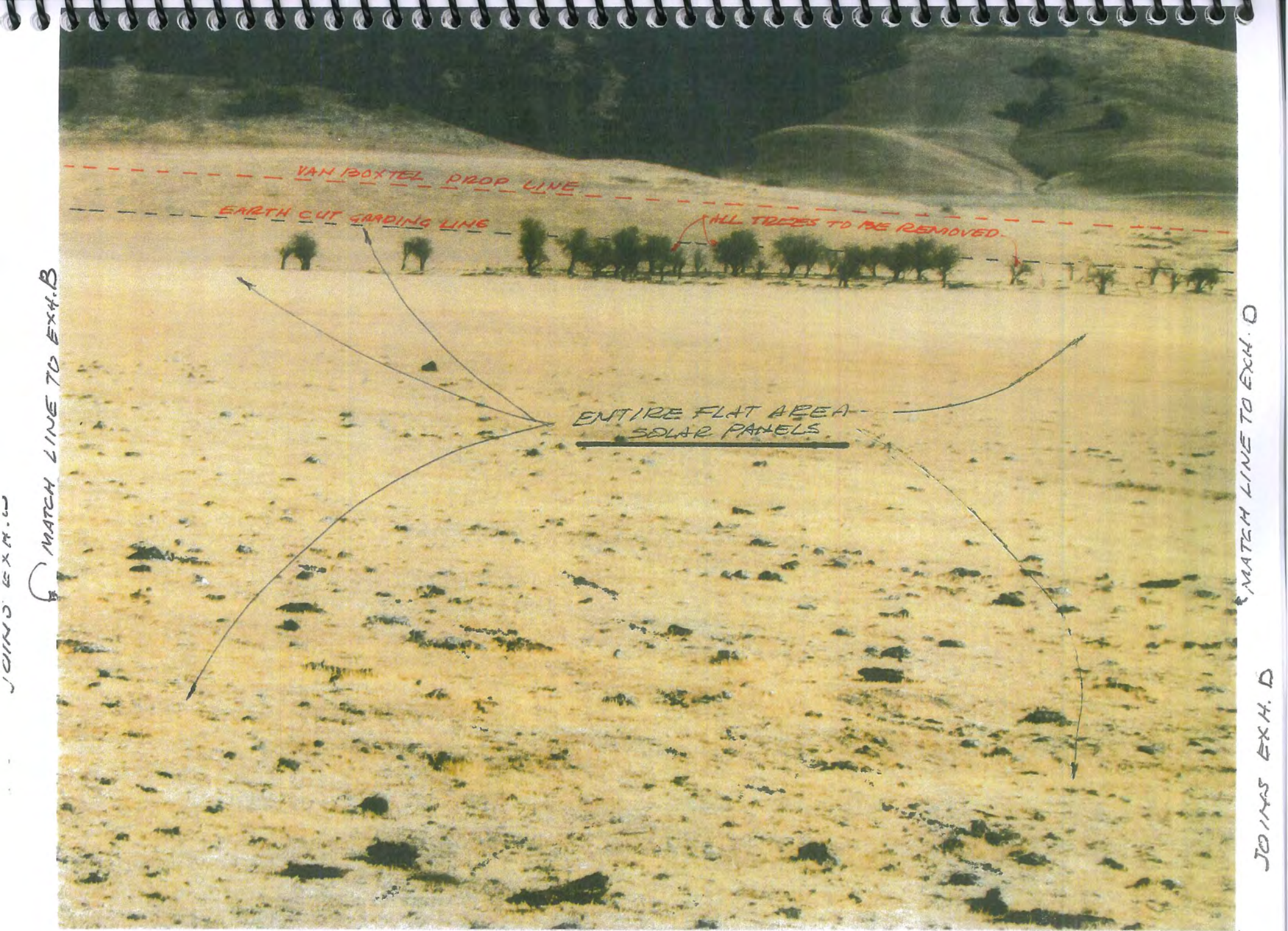
BR

LOOKING NORTH FROM VAN BOXTEL ENTRY GATE

2-674

EXHIBIT B

JOINS EXH. C



VAN BOXTEL DROP LINE

EARTH CUT GRADING LINE

ALL TREES TO BE REMOVED

ENTIRE FLAT AREA
SOLAR PANELS

JOINS EXH. C
MATCH LINE TO EXH. B

MATCH LINE TO EXH. D

JOINS EXH. D

LOOKING NORTH TOWARD VAN BOXTEL'S FOOT-HILLS FROM TURKEY FLAT ROAD.

EXHIBIT C

BOUNDING BOX: C.

VAN BOXTEL RANCH →

HEARST RANCH

MATCH LINE TO EXH C



VAN BOXTEL RANCH →

NEAREST RANCH →

CONTINUES 4 MILES TO EAST ↓

LOOKING NORTH FROM TURKEY FLAT RD

EXHIBIT D

1/4

Index C

CALIFORNIA VALLEY WITH SIMULATED SOLAR PANELS

Plates Ax, Bx, Cx and Dx

Simulated solar panel photos taken from Van Boxtel residence area

18.18



TURILEY FLAT RD

FENCED 5 AC WILDLIFE AREA

34321.65
1/4

MATEX PLATE 13x

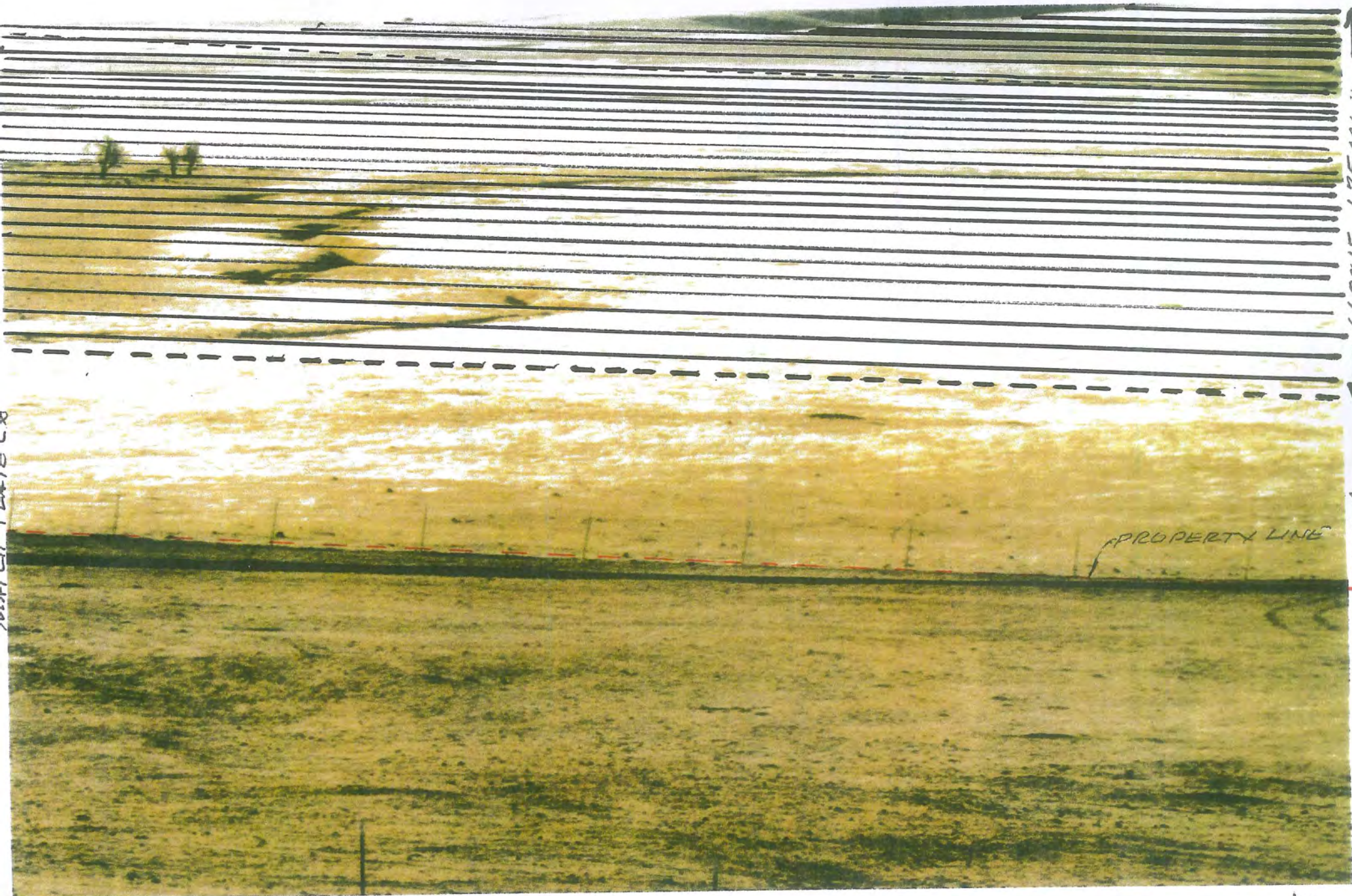
SOUTH
↑

VIEW FROM VAN BOXTEL RANCH
WITH SIMULATED SOLAR PANELS

2-678

MAKE-A-WISH FISHING & CAMPING
AREA

PLATE A_x



66001E 1.75 MI

MATCH DIAPY A

PROPERTY LINE

VIEW FROM VAN ROOYEL RANCH
WITH SIMULATED SOLAR PANELS

PLATE Bx

287823



7/11/21 PLATE D x

7390' 1.4 MI
-R MATCH PLATE B

CREEK

GRADING CUT LINE

VIEW FROM VAN BOXTEL RANCH
WITH SIMULATED SOLAR PANELS
2-680

PI 17F Cx

SAULT
↑



MARTEL PLATE C

VIEW FROM VAN BOXTEL RANCH
WITH SIMULATED SOLAR PANELS

PLATE D_x

South

Index D

STORM DRAINAGE ASSESSMENT

Map B

Drainage from Oropesa onto solar field

SEC #1

Vertical section through Map B

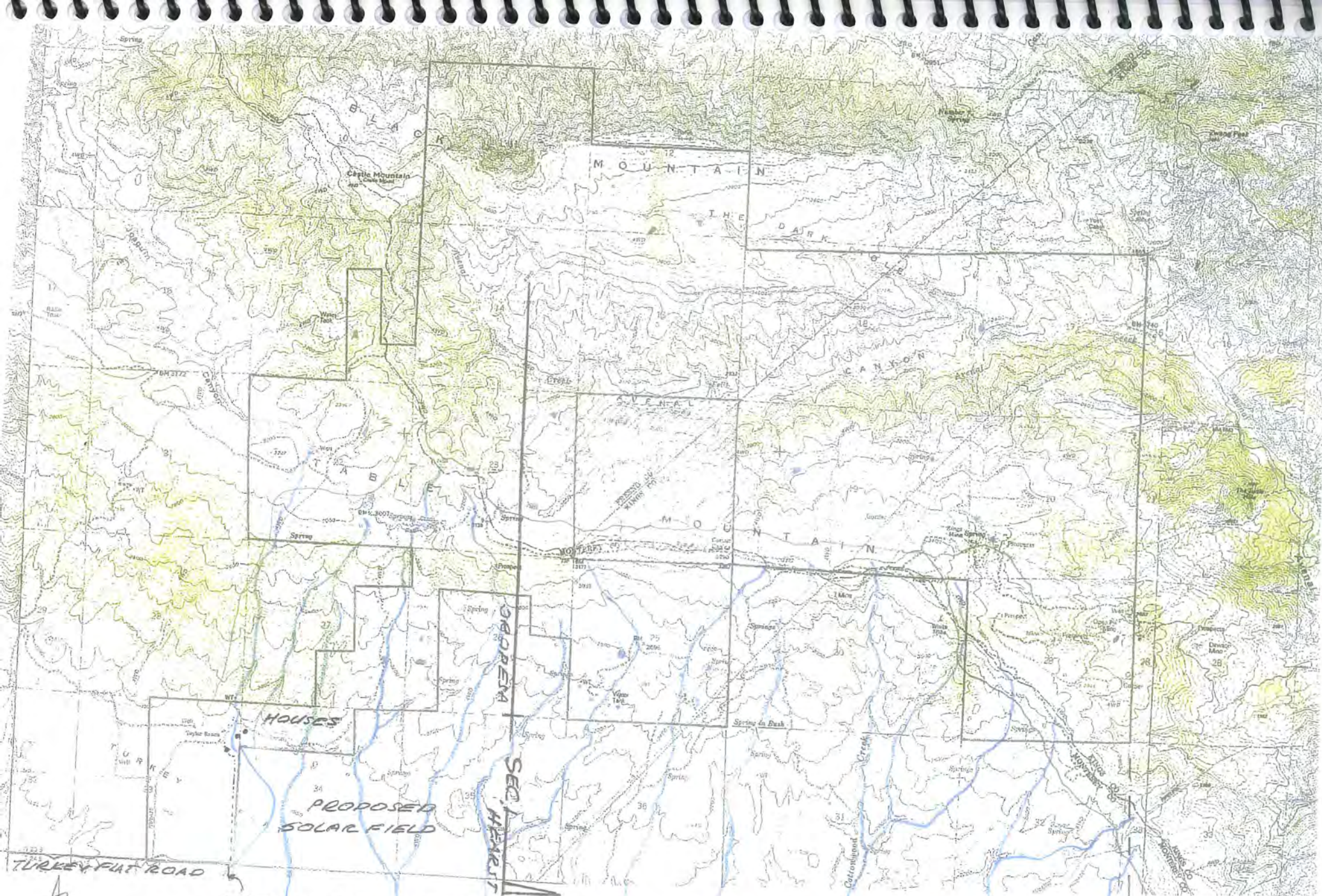
EXHIBIT #1

Photo of flooding course across western section of solar field

Plate H

Creek erosion at north west corner of solar field. Similar in other creeks shown on Map B

18.18



ESTIMATED WATER ENTERING THE SOLAR FIELD FROM 6720 AC SLOPE →

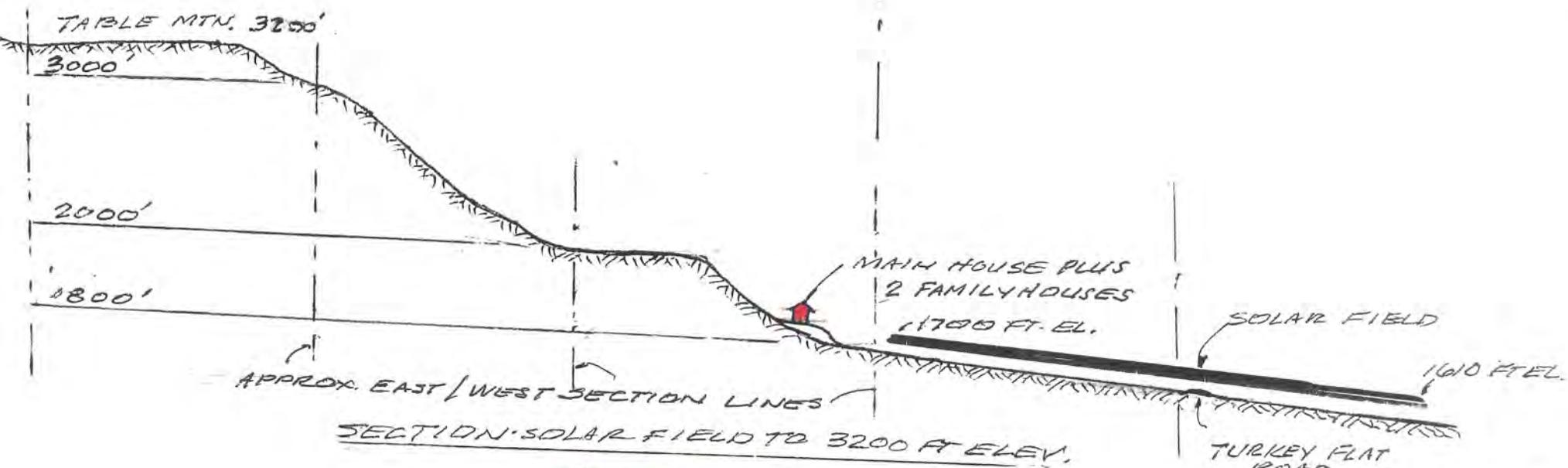
| | | | |
|---|---------|----------------------|--------------|
| 1 | 2" RAIN | ~ 50 MIL. CUBIC FEET | 1148 AC. FT. |
| ← | 3" " | ~ 73 MIL. CUBIC FEET | 1680 AC. FT. |

← 19 ANNUAL CREEKS RUN ONTO SOLAR FIELD FROM FOOT-HILLS →

OROPESA RANCH

MAP "B"

← OROPESA RANCH CONTINUES 2 MILES TO CASTLE MTN 4320' EL. → PROPOSED SOLAR FIELD →



← NORTH 2-684 SOUTH →

SECTION



LOOKING SOUTH FROM SECT. 20 VAN BOXTEL RANCH
DRAINAGE CONDITION - WEST SOLAR FIELD AREA

EXHIBIT #1

South



CREEK SHOWN ON PLATE A A MAJOR ANNUAL DRAINAGE OF VAN BOXTEL RANCH. ONE OF 10 SUCH CREEKS ENTERING AND COMPLETELY CROSSING THE PROPOSED SOLAR FIELD AND OVER WHICH WITH THE DEVELOPERS ARE PLANNING TO BRIDGE OVER WITH SUB-STRUCTURE AND PANELS



SAME CREEK AS ABOVE ON SOLAR FIELD PROPERTY SHOWING A 4 FOOT 3 INCH PERSON STANDING IN THE CENTER OF THE TRENCH. IT IS APPROXIMATELY 10 FEET DEEP AND 12 TO 15 FEET WIDE AT THE TOP IN THIS AREA

EXAMPLE OF CREEKS CROSSING THE PROPOSED CALIFORNIA FLATS SOLAR FIELD

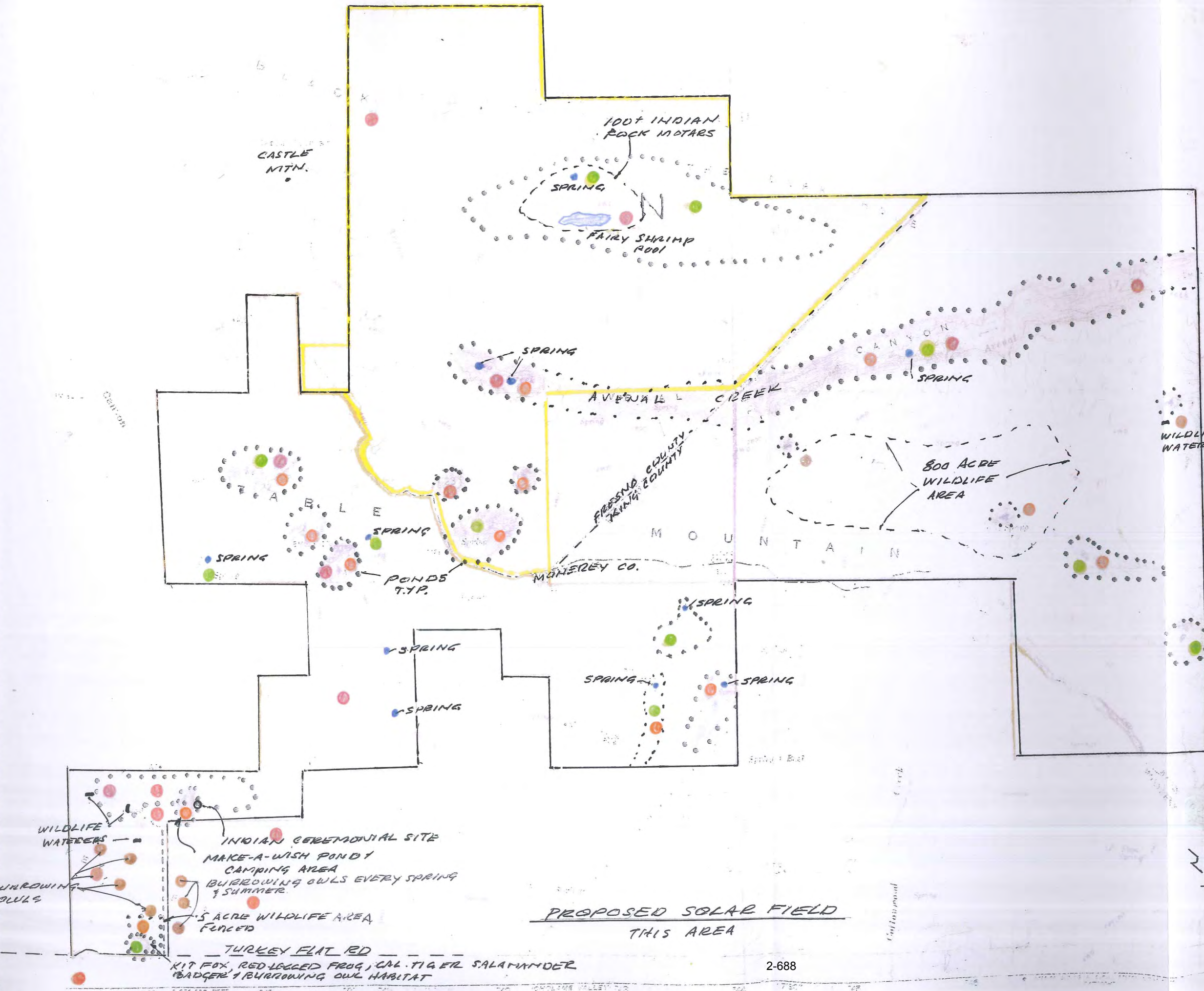
PLATE H

Index E

ENDANGERED SPECIES

Map C Endangered species map
Confirms species on Oropesa Ranch and West edge of solar field

18.18



MAP C

TABLE MOUNTAIN CONSERVATION BANK
OROPESA RANCH
 CRITICAL WILDLIFE HABITAT

- Annual wetlands, ponds and springs
- Native grasses and oaks
- Burrrowing owl habitat
- California red-legged frog
- San Joaquin kit fox
- California tiger salamander



WILDLIFE WATERERS

BURROWING OWLS

INDIAN CEREMONIAL SITE

MAKE-A-WISH POND / CAMPING AREA

BURROWING OWLS EVERY SPRING & SUMMER

5 ACRE WILDLIFE AREA FENCED

TURKEY FLAT RD

KIT FOX, RED-LEGGED FROG, CAL. TIGER SALAMANDER

BADGER / BURROWING OWL HABITAT

PROPOSED SOLAR FIELD
 THIS AREA

Index F

INDIAN CULTURE RELIES

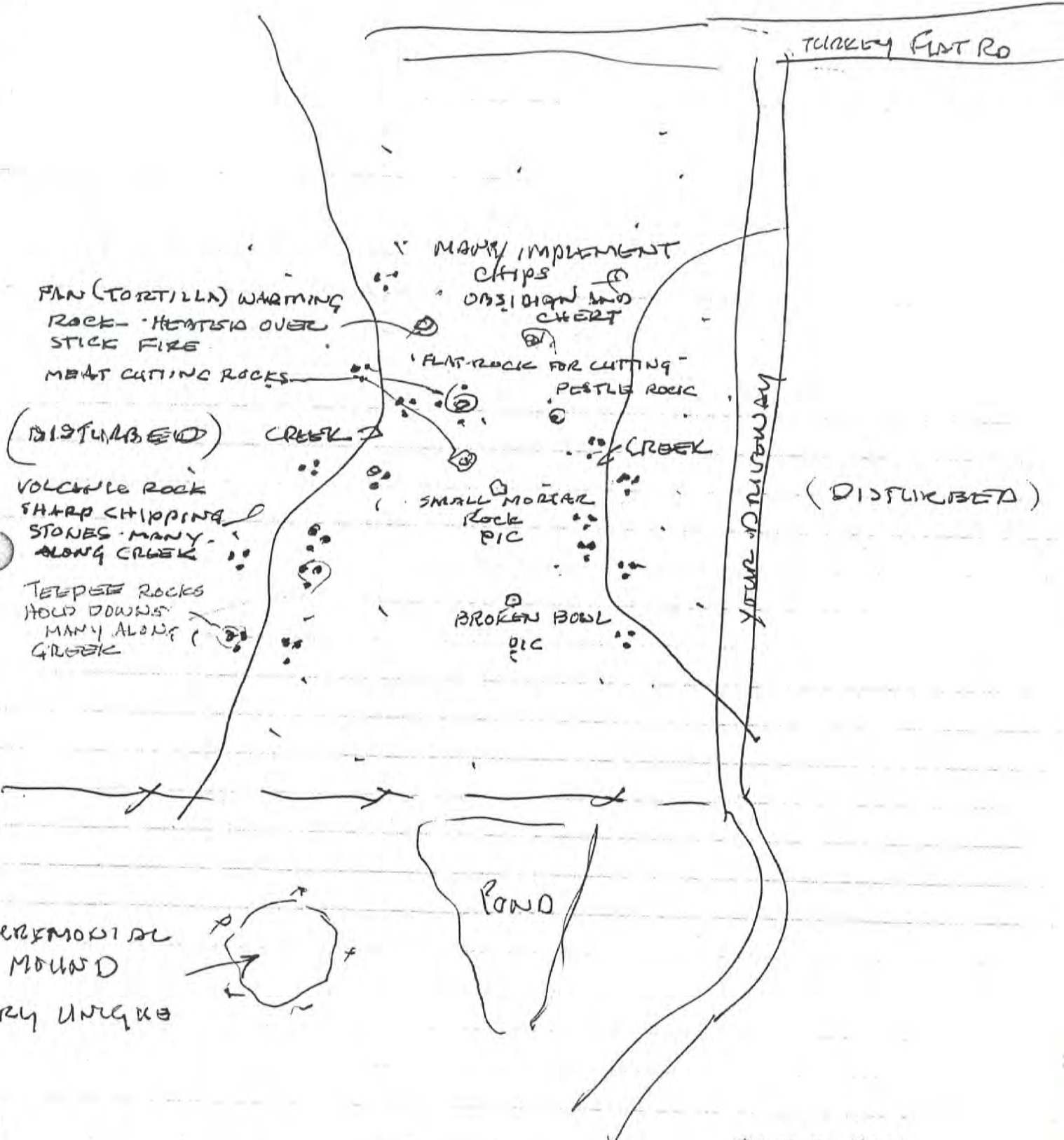
18.18

Map G Indian Relic map drawn by L. Madina

A Yokut Indian whose ancestors lived on the property until homesteads drove them off. Map is of the western edge of solar site.

Plate G

Photo of Indian relics on proposed solar property.



PAN (TORTILLA) WARMING
 ROCK - HEATSEA OVER
 STICK FIRE
 MEAT CUTTING ROCKS

MANY IMPLEMENT
 CHIPS
 OBSESSION AND
 CHERT

FLAT ROCK FOR CUTTING
 PESTLE ROCK

(DISTURBED)

VOLCANIC ROCK
 SHARP CHIPPING
 STONES - MANY
 ALONG CREEK

TEEPER ROCKS
 HOLD DOWN
 MANY ALONG
 CREEK

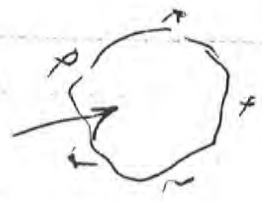
SMALL MORTAR
 ROCK
 PIC

BROKEN BOWL
 PIC

(DISTURBED)

POND

CEREMONIAL
 MOUND
 VERY UNIQUE



JUNE 5 2001
 L. MADIXA

TABLE MTS RANCH

Hodges 2-690

1 OF 14 PAGES

MAR 6



HEAVILY SCARRED MEAT CUTTING FLAT ROCK AND
CUTTING ROCK BLADE FOUND UNDERNEATH.



PORTION OF A BROKEN ROCK BOWL, PERHAPS
A SEED GRINDING MATATE

SAMPLE OF REMNANT PHOTOS TAKEN BY
L. MADINA, A YOKUT INDIAN AND A WELCOME
ANNUAL VISITER TO RANCH AND SURROUNDING
ANCESTRAL HABITAT. REFERENCE L. MADINA
MAP G

Index G

SOLAR ELECTRIC ANALYSIS

EXHIBIT #2

Copy of a solar proposal the Van Boxtel's received from a solar marketing group

18.18

Index G

EXHIBIT #2 A Solar Proposal 2012

An economic analysis of the proposal for our section 33 barley field. As you can see the development is completely funded by U.S. taxpayers through subsidies and tax credits. The developers (promoters) are not concerned about the economics of the project because the reimbursements from government (taxpayers) are based on the percentage of costs. The owners, farmers, ranchers or industry look only to the bottom line which, in the case of Exhibit #2 is only .7% (a little over one half of one percent). The unfortunate tax payers, State and Federal, pay for the solar field but never own any part of it. In other words, the owners' neighbors are paying for the implementation of the solar field.

Solar Farm & Ranch Flyer

Irrigating or Drying Crops, Heating/Cooling or Powering Buildings & Processing Facilities, Greenhouses or Irrigation Systems?

Using Clean and Unlimited Power from the Sun can make your Farming/Ranching operations more productive and Cost Effective.

Let us show you how we can help you design, acquire and finance a custom Solar solution for your Farm/Ranch operation.

USDA on Farm Energy Production Survey: "Solar panels have been the most prominent way to produce on-farm renewable energy (2011)"

Solar Energy Systems have low maintenance costs, the fuel is FREE and abundant, and systems are Cost Effective. A substantial portion of system costs are recovered through State and Federal subsidies, grants, utility service provider rebates, accelerated depreciation and Tax Credits.

Solar energy can be harvested forever to meet a large percentage of your electrical power needs. It can also afford you a long term source of income from the sale of excess power while providing potentially significant tax advantages.

System Example completed December 2010

| Installed Product: | Photovoltaic Array | | |
|---|--------------------|--------------|------------------|
| Total Output | 418kW-DC | | |
| Install Cost: | \$2,500,403 | | |
| CSI Rebate: California Solar Initiative Incentive | \$<922,370> | | 36 % |
| FITC: 30% Federal Incentive Tax Credit | \$<700,113> | | 30. % |
| 5 Year Fed & State Depreciation (MACRS): | \$<860,874> | | 34 % |
| Net Cost | \$17,046 | Less than 1% | 0.68 % 100. % |

Disclaimer: The above example is for illustration purpose only and shall not be construed in any way or form to indicate other solar voltaic project will achieve the same financial results.

Letter 18

COMMENTER: W. J. Van Boxtel

DATE: September 18, 2014

Response 18.1

The commenter expresses opposition to the proposed project, citing negative environmental effects as well as emotional, visual, and economic impacts. The commenter additionally notes that Yokut and Salinas Indians resided on the project area. The commenter's opinion of the project is noted. Environmental effects of the project are addressed throughout Section 4.0 of the EIR. Visual and cultural resources are specifically addressed in Sections 4.1, *Aesthetics*, and 4.4, *Cultural and Paleontological Resources*, respectively.

Under CEQA, economic or emotional change cannot be considered a significant effect on the environment, though a social or economic change related to a physical change may be considered in determining whether the physical change is significant. Therefore, socio-economic analysis is not required under CEQA and was not included in the analyses in the DEIR.

Response 18.2

The commenter describes the anticipated visual prominence of the proposed project, noting that neither trees nor fencing would be able to shield view from their residence of the proposed solar panels, which would include over 3,000 feet of solar panels mere feet from their driveway. Visual impacts are addressed in Section 4.1, *Aesthetics*, of the DEIR. As noted on page 4.1-24, views from two private residences (including the commenters' residence) would be substantially degraded. These residences are located approximately 775 feet from the project site boundary, near the eastern public road terminus of Turkey Flat Road (refer Figure 2.4b in Section 2.0, *Project Description*, of the DEIR). These residences are located slightly uphill from the project site, and have sweeping views of the existing project site. These private views would change from a rural ranch landscape to an expanse of solar modules and associated infrastructure.

The project site is not in a County-designated visually sensitive area and is not visible from a scenic roadway. The County of Monterey General Plan does not protect private views, and the scenic resources policies (contained in the Conservation and Open Space Element) do not expressly protect grazing land as a scenic resource. In addition, CEQA does not require a detailed evaluation of individual private views, particularly when only a limited number of private views would be affected by site development activities. Therefore, although some homeowners may experience adverse interference with their private views, the impact is not significant for purposes of the CEQA analysis due to the limited number of affected properties.

Response 18.3

The commenter expresses the opinion that the County of Monterey should exact financial mitigation for the solar field's negative financial and visual impacts. As noted under responses



18.1, economic change cannot be considered a significant effect on the environment, and therefore a socio-economic analysis was not included in the DEIR. Further, as discussed under response 18.2, impacts to private views are not significant for the purposes of CEQA.

Response 18.4

The commenter expresses their appreciation for the beauty of the California Flats Turkey Flat valley and describes the views of the valley from their home. The comment is noted. Visual impacts associated with the proposed project are addressed in Section 4.1, *Aesthetics*, of the DEIR.

Response 18.5

The commenter refers to an attached document entitled “A Contrary Expose in Opposition of the Proposed California Flats Solar Field,” which was provided to the Monterey County RMA – Planning Department in early 2013. Refer to response 18.18 for a response to this document.

Response 18.6

The commenter describes the perceived permanence of the proposed project, stating that it may be replaced when the current project is determined to be obsolete. As noted in Section 2.0, *Project Description*, at the end of the project’s useful life (anticipated to be 30 to 40 years), it would be decommissioned or, alternatively, repowered. If the project site is repowered, future discretionary review and approval by the County and any necessary associated State or Federal approvals would be required.

The commenter additionally notes the anticipated visual and economic impacts of the project. As noted previously, visual impacts are addressed in Section 4.1, *Aesthetics*, and socio-economic impacts are outside the purview of CEQA.

Response 18.7

The commenter suggests that the California deserts would be a more appropriate location for a solar project, noting the prevalence of high voltage transmission lines, availability of open space with no fog or haze, fewer valley fever spores, and no people to be adversely affected.

Alternatives to the proposed project, including alternative locations, are addressed in Section 7.0, *Alternatives*, of the DEIR. This includes an alternate site within the Jack Ranch (Alternative 2) and Department of Defense brownfield sites (addressed in Section 7.1, *Alternatives Considered but Rejected*).

The proposed project site is located in an area that is optimal for solar energy development, and has been identified as a Competitive Renewable Energy Zone (CREZ) under the State’s Renewable Energy Transmission Initiative (RETI). With elevations of around 1,700 feet, the site is situated above the coastal marine layer and, unlike many other inland central California areas, is not subjected to “tule fog” during the winter. The project site therefore experiences substantial year-round sunlight. An existing 230 kilovolt (kV) transmission line with available



transmission capacity, the Morro Bay-Gates line, transects the site. The site is bordered in all directions by mostly undeveloped grazing land, interspersed with sparse residential settlements and small farms south and east of the site. There are two rural residences located in close proximity to the site (775 feet north), both near the eastern public road terminus of Turkey Flat Road.

Valley fever impacts of the proposed project are addressed in Section 4.3, *Air Quality*, of the DEIR.

Response 18.8

The commenter describes the importance of open space, including to the Yokut and Salinas Indians and as evidenced by the Williamson Act and scenic highways. Impacts to Native American resources are described in Section 4.5, *Cultural and Paleontological Resources*; impacts to agriculture, including Williamson Act contracts, are addressed in Section 4.2, *Agricultural Resources*; and impacts to scenic highways are addressed in Section 4.14, *Effects Found not to be Significant*. The remainder of this comment does not pertain to environmental issues or the DEIR analysis. Therefore, no further response is required.

Response 18.9

The comment raises numerous environmental issues, but does not specifically address the analysis contained in the DEIR. Refer to the analysis in Section 4.0, *Environmental Impact Analysis*, of the DEIR. Valley Fever, specifically, is analyzed in Section 4.3, *Air Quality*. Refer to response 16.122 for a discussion of the potential for the project to raise ambient temperatures.

Response 18.10

The commenter raises the issue of water demand and impacts to local aquifers. These impacts are addressed in Impact HYD-3 in Section 4.9, *Hydrology and Water Quality*. As noted therein, construction and operation of the proposed project would not substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. In addition, the proposed project would have sufficient water supplies available from existing resources and no new or expanded entitlements would be needed. Impacts would be Class III, *less than significant*.

Response 18.11

The commenter expresses concern over dust and noise impacts during construction. These impacts are addressed in Sections 4.3, *Air Quality*, and 4.11, *Noise*, respectively. As noted in Section 4.3, *Air Quality*, Mitigation Measure AQ-2(a) (Dust Control Measures) is required to control dust during construction. This measure includes the use of water trucks or sprinkler systems to prevent airborne dust from leaving the site, speed limits, revegetation, and other measures. Additional measures are required by Mitigation Measures AQ-6(a) (Valley Fever Management Plan), AQ-6(b) (Valley Fever Dust Suppression Measures), AQ-6(c) (Monterey County Health Department Notification), AQ-6(d) (Valley Fever Worker Training Program and Safety Measures), and AQ-6(e) (Valley Fever Information Handout) to specifically reduce the



potential for exposure to the *Coccidioides* fungus that causes Valley Fever, which may be located in dust spores. It should be noted, however, that the project would not expose sensitive receptors to substantial pollutant concentrations associated with construction dust, carbon monoxide hotspots, toxic air contaminants, or naturally-occurring asbestos. Impacts related to localized pollutants would therefore be Class III, *less than significant* (refer to Impact AQ-4).

Construction-related noise effects are discussed under Impact N-1 in Section 4.11, *Noise*. As noted therein, operation of heavy equipment during project construction and decommissioning would result in a temporary noise level increase that could disturb nearby sensitive receptors. However, compliance with County noise protection policies S-7.9 and S-7.10 would ensure that this would be a Class III, *less than significant*, impact.

Response 18.12

The commenter notes that the DEIR addresses impacts to endangered and threatened species, and expresses their concern over the welfare of all wild species. The comment does not raise any issues specific to the DEIR analysis. Therefore, no further response is required.

Response 18.13

The commenter expresses opposition to the proposed project. The comment is noted. Refer also to Section 4.7, *Greenhouse Gas Emissions/Climate Change*, for an explanation of climate change.

Response 18.14

The commenter expresses concern over visual impacts of the proposed project, and references the previously-provided “Contrary Expose” document. Visual impacts are addressed in Section 4.1, *Aesthetics*, of the DEIR. Views from two private residences (including the commenters’ residence) would be substantially degraded. These residences are located approximately 775 feet from the project site boundary, near the eastern public road terminus of Turkey Flat Road (refer Figure 2.4b in Section 2.0, *Project Description*, of the DEIR). These residences are located slightly uphill from the project site, and have sweeping views of the existing project site. These private views would change from a rural ranch landscape to an expanse of solar modules and associated infrastructure.

The project site is not in a County-designated visually sensitive area and is not visible from a scenic roadway. The County of Monterey General Plan does not protect private views, and the scenic resources policies (contained in the Conservation and Open Space Element) do not expressly protect grazing land as a scenic resource. In addition, CEQA does not require a detailed evaluation of individual private views, particularly when only a limited number of private views would be affected by site development activities. Therefore, although some homeowners may experience degradation of their private views, the impact is not significant for purposes of the CEQA analysis due to the limited number of affected properties.

Refer also to response 18.18 for a response to the “Contrary Expose” document.



Response 18.15

The commenter describes the economic effects the proposed project is likely to have on their property value, which they anticipate to be devastating given the large scale of the project and the fact that their property looks down on much of the project area. The comment is noted. As stated previously, under CEQA, economic or emotional change cannot be considered a significant effect on the environment, though a social or economic change related to a physical change may be considered in determining whether the physical change is significant. Physical visual effects of the project are described in Section 4.1, *Aesthetics*, of the DEIR. However, the effect of project implementation on an adjacent property value is not considered a physical change. Therefore, analysis of this issue is not required under CEQA and was not included in the analyses in the DEIR.

Response 18.16

The commenter expresses the opinion that visual impacts (their loss of view) and loss of property value are impacts that cannot be mitigated. Refer to responses 18.2 and 18.15. As noted therein, the impacts to private views are not significant for purposes of the CEQA analysis, and economic effects of the project are outside the scope of the analysis.

Response 18.17

The commenter notes that the DEIR includes mitigation for the protection of endangered and threatened species, and offers that they can provide a conservation easement on their property. The comment is noted and will be forwarded to County decision-makers and the project applicant for consideration.

Response 18.18

The commenter provides a document entitled “A Contrary Expose in Opposition of the Proposed California Flats Solar Field,” which was provided to the Monterey County RMA – Planning Department in early 2013, prior to completion of the DEIR. The document raises several concerns with the proposed project, including: visual and emotional impacts, financial impacts, impacts to endangered and threatened species habitat, radiated heat from panels, impacts related to stormwater runoff, Native American cultures, construction-related dust impacts, visually offensive illumination, and wildlife habitat. The document additionally contains maps of the project site and photographs containing hand-drawn simulations of the proposed solar panels. Hand drawn maps depicting habitat and cultural resources on the project site are also provided, as is a copy of a solar proposal received by the commenter from a solar marketing group, with an added note pointing out that such a development would be largely funded through federal subsidies and tax credits.

Because this document was prepared prior to completion of the DEIR, it does not specifically address the analysis contained therein. However, all of the environmental issues raised in the document have been addressed in the DEIR. Specifically, visual impacts, including those related to nighttime lighting and daytime glare, are analyzed in Section 4.1, *Aesthetics*. This section also includes professional photographic simulations. Refer also to response 18.2 for a response to the commenter’s concerns about visual impacts to their private residence. Impacts to endangered and



threatened species habitat and other wildlife habitat are addressed in Section 4.4, *Biological Resources*. Habitat maps are also provided in this section. Radiant heat is discussed in Section 4.7, *Greenhouse Gas Emissions/Climate Change* (as added in response to comment 16.122; refer to response 16.112). Stormwater runoff is addressed in Section 4.9, *Hydrology and Water Quality*. Impacts to Native American cultures, including on-site artifacts, are addressed in Section 4.5, *Cultural and Paleontological Resources*. Finally, construction-related dust impacts are addressed in Section 4.3, *Air Quality*. Refer also to response 18.11 for a detailed response to the commenter's concerns related to construction-generated dust.

Three issues raised by the commenter in this "Contrary Expose" are not addressed in the DEIR: emotional impacts, financial impacts, and the use of federal funding for solar projects. As noted previously, under CEQA, economic or emotional change cannot be considered a significant effect on the environment, though a social or economic change related to a physical change may be considered in determining whether the physical change is significant. Therefore, socio-economic analysis is not required under CEQA and was not included in the analyses in the DEIR.



Letter 19

Robinson, Delinda x5198

From: Young, Benny x5862
Sent: Friday, September 19, 2014 5:54 PM
To: Novo, Mike x5192; Holm, Carl P. x5103; Ford, John H. x5158; Robinson, Delinda x5198
Subject: Fwd: CEQA comments on Solar Flats Project PLN 120294
Attachments: CEQA comments Solar Flats.pdf; ATT00001.htm

FYI and project files.
Please let me know if a response is necessary at this point,

Benny

Sent from my iPhone

Begin forwarded message:

From: "Jane Wooster" <jane_wooster@yahoo.com>
To: "Young, Benny x5862" <YoungB@co.monterey.ca.us>, "100-District 3 (831) 385-8333" <district3@co.monterey.ca.us>, "Lopez, Christopher M. x5729" <LopezCM@co.monterey.ca.us>
Subject: Fw: CEQA comments on Solar Flats Project PLN 120294

FYI

I am forwarding this to you. The California Solar Flats Project will scar a pristine area of Monterey County. I am afraid this project is going through and it is just a shame because it will have a huge affect on this remote area. Our family owns property adjacent to the development. What is now a nice piece of property with a fresh water spring and a great view will soon be next door to a couple thousand acres of solar panels, continuous low level noise, 24-hour activity, 24-hour lights and reflections off the panels. We are told the General Plan protects the viewshed for the public but not for us. We sit on a county road so I am at a loss why the public is not being considered but I suppose it is because it is remote.

19.1

Actually, while the site is tucked away where most people won't see it, should there be safety issues during construction (they will have 800 people on site) or after, they will find that County services -- sherriff, fire and medical -- are a long way away when they need them. And the county will find those services, which they will expect, will be very expensive to provide.

19.2

Jane Wooster

--- On Fri, 9/19/14, Jane Wooster <jane_wooster@yahoo.com> wrote:

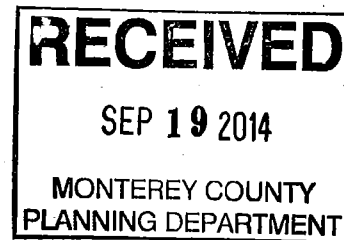
From: Jane Wooster <jane_wooster@yahoo.com>
Subject: CEQA comments on Solar Flats Project PLN 120294
To: CEQAcomments@co.monterey.ca.us
Cc: robinsond@co.monterey.ca.us, fordj@co.monterey.ca.us, "ann myhre" <annmyhre@msn.com>

Date: Friday, September 19, 2014, 4:38 PM

We have attached comments on the Solar Flats Project EIR PLN 120294. Please let us know if you have questions and thank you for the opportunity to comment.

Jane Wooster

Monterey County Resource Management Department
ATTN: John Ford and Delinda Robinson
168 West Alisal Street, 2nd Floor
Salinas, CA 93901



September 19, 2014

RE: California Flats Solar Project proposed by Element Power
County File Number PLN 120294
Comments on Environmental Impact Report

The purpose of this letter is to comment on the Environmental Impact Report (EIR) that has been prepared to evaluate environmental impacts associated with the proposed California Flats Solar Project in the County of Monterey. California Flats Solar, LLC has submitted an application for a Use Permit to the County of Monterey to construct, operate and eventually decommission a 280-megawatt (MW) alternating current photovoltaic solar power facility in unincorporated southeastern Monterey County, approximately seven miles southeast of the community of Parkfield and 25 miles northeast of the City of Paso Robles, near the borders of Monterey, San Luis Obispo, Kings and Fresno counties. Our family owns property adjacent to this proposed project which is actively operated as a cattle ranch and we feel our property and the livestock on the property will be adversely affected by this project if it moves forward as planned without changes.

19.3

As the public agency with the principal responsibility for approving the project, and as the Lead Agency for this project under the California Environmental Quality Act of 1970 (CEQA) as defined in CEQA Guidelines Section 15367 we are asking you to consider our comments as they pertain to the information contained in the EIR prior to taking any action on this project.

The project is of considerable size and would encompass approximately 3,000 acres, and would be comprised of the solar generating facility area, a utility corridor, and improvements to an existing access road. The solar generating facility area would be located on approximately 2,720 acres, and would include an approximately 2,120-acre solar development area (SDA), an approximately 135-acre 230 kV overhead transmission line, an approximately 5-acre high-capacity collection system line corridor, two substations each approximately six acres in size, a switching station owned and operated by Pacific Gas & Electric Company (PG&E) approximately six acres in size, an operations and maintenance (O&M) facility, construction staging areas, and other infrastructure needed to serve the project. We are concerned that we do not believe California Flats Solar, LLC has adequately planned for an emergency secondary access road for this project. The EIR report states in Table 1-1 that Jane Wooster, the "commenter requests a survey to determine if the secondary (emergency) access road intrudes onto the adjacent property," and it further states that "the comment does not pertain to an environmental impact, therefore no specific to the EIR. No further response is necessary."

19.4

It is our contention that this comment is entirely within the scope of an EIR which according to Section 1.5 Scope and Content says that "This EIR addresses the issues determined to be potentially significant during the EIR scoping period.... The issues that have been identified to be addressed in this EIR include: ... Hazards and Hazardous Materials, ...Public Services and Utilities, ...Transportation/Traffic."

The emergency road access involves a hazard if it is not available, it involves determining if public services such as fire protection are readily available, and it involves transportation and traffic as this exit is specifically mentioned in the EIR as an access point for heavy equipment during the construction period.

19.4

We believe that the proposed designated secondary access road includes a portion of Monterey County Assessor's Parcel Number 424-181-011-000 which is owned by our family. We believe it would be appropriate for the County of Monterey to require that California Flats Solar, LLC be required to demonstrate that they have legal access to this secondary access point without crossing our property before approving this project. We do not think that our family should bear the responsibility and the liability of traffic over our private property when we are not responsible for, and do not support, this project. Furthermore, we do not believe that we should bear the expense and the burden of proof that they are encroaching on our ranchland. It is our understanding that California Flats Solar, LLC has represented that they have a right to use this road and that if they do not they will just move it over. It would be appropriate for them to demonstrate that they have the property available to move it over. If that is in fact the case, then we request that as a part of the project they move the fence between our property and theirs so that it is on the property line between our properties so traffic from the development does not travel on our land. A barbed wire, six wire fence with steel pickets and pipe corners and braces, similar to that which is already there, should be sufficient.

19.5

Additionally, we would like to voice our concern about using Turkey Flat Road as an access point for police and fire protection. This is a remote, single-lane road with at least one very bad blind turn that is dangerous even when one knows the road. If it is determined that this road will be used for heavy equipment access during the construction process and for emergency access thereafter, we believe the County should require California Flats Solar, LLC to pay to reconstruct the road in the most dangerous areas where it is impossible to see oncoming traffic and where it is only a one lane road. Private property owners when building a personal residence are required to have a road wide enough for two fire trucks to pass and it seems reasonable that roads serving an industrial operation such as this with the number of people there during construction, and the potential for hazardous situations, would at least need to meet this requirement.

19.6

Additionally, consideration needs to be given to security. It is our understanding that there are only two Monterey County Sheriffs on duty from Soledad south to the San Luis Obispo County line during nighttime hours. This construction will cause additional traffic and some determination should be made as to how the additional traffic and potential crime will be handled.

19.7

We are also concerned about the dust during construction and the resulting exposure to Valley Fever during this construction phase of the project. Impact AQ-2 states that "Construction of the proposed project would result in the temporary generation of air pollutants, which would affect local air quality.... Impacts would be significant and unavoidable." The EIR lists several methods of controlling the dust on the site but it is negligent in addressing how air quality will be controlled on adjacent ground. It has been suggested to us by your office that this should not be a consideration for us as we do not live on our property; the property, however, is used as ranch land, individuals are there to check the cattle and the cattle themselves should also be a consideration. Although health issues are addressed in a different portion of the EIR, we will address them here. We are concerned about human health and cattle health. This project will certainly disturb the surface of the soil releasing Coccidioidomycosis spores, which are a soil-dwelling fungus which becomes wind-born and causes lung disease.

19.8

19.8 Anthrax is also generally thought to live in the soil of this area of California and it can infect both humans and animals. While there are different ways of contacting the disease, approximately half of humans who contact it through inhalation die. It is projected that this development will immediately about our property. Given the seriousness of the airborne illnesses cited above, we believe a minimum 300 foot buffer should be provided between our property and any surface area that is disturbed. We also believe that California Flats Solar, LLC should be responsible for restitution for any animal deaths that are shown to be the results of these deceases and that they should be responsible for payment of medical bills for individuals who live nearby the construction area and who contact these deseases. (It should be of interest that my notes for the October 2, 2012 meeting in Parkfield say it was indicated the project would have a 200 feet buffer between our property and any solar panels.)

19.9 We are concerned that the EIR does not specifically state the widths of the specific interior roads nor the location of the waste treatment facility. Since adjacent landowners will already need to adjust to 24-hour activity, a low level of continuous noise, and continuous lighting and reflection of light, I suggest that you require that the waste treatment facility be placed in an area remote from Turkey Flat Road and in a place where the prevailing winds will not subject landowners on this road to drift odors so that they do not also have to become accustomed to the odor of the facility. I also suggest that an attempt be made to keep heavily traveled roads away from the site perimeter near Turkey Flat Road in order to cut down on dust. Additionally, during public meetings we were told that a line of trees would be planted between our private property and the project site but I see no mention of this in the EIR. I suggest that such a line of trees should be planted and maintained by California Flats Solar, LLC.

19.10 The EIR mentions that additional water well will be drilled near our property. We are concerned that this may have a detrimental effect on the spring on our property which is our only source of water and request that the well be moved to a more distant location. We note that the EIR says this well water will be piped for some distance. We would hope that the well could be moved to a source closer to where the water will be used and further from our boundary fence.

19.11 I would also like to bring to your attention that we sent several emails to Taven Kinison Brown that were intended as public comments and that he assured us would be considered public comments and that he said would be addressed before this project moved forward and that many of those comments are not addressed or mentioned in this EIR. There were comments about "prime agricultural ground" or the lack of on the suggested secondary site, a suggestion for an alternate site on the alkali Cholame Flats, questions about whether there were "specs" for the emergency exit, a question about how wide the Turkey Flat County Road easement was, a request for a copy of the actions of the Board of Supervisors when they closed Turkey Flat Road, whether or not having a secondary road access would be seen as a deficiency, whether when Element Power told the public that five acre feet of water per year would be used if the county determined that usage to be accurate, how much heat would be thrown off these solar panels and if there is a possibility that would affect the temperature of the surrounding farmland, and if these solar panels are similar to high tension power lines in that they "bleed" electrical energy and if so can this be dangerous or detrimental to human health.

Mr. Brown's October 15, 2012 response to these comments included this statement: "Thank you Jane for your concerns and correspondence with the County. While we are processing this application according to our standard practices and pace (not fast tracking) your questions are very real and specific and will be addressed. When the County engages in the evaluation of new development projects, we evaluate primary and secondary access, adjacency to neighbors, potential impacts to environmental resources, road right of ways and safety, water use, and dust and air quality among many other

technical issues. Much of this will be fleshed out in the environmental review process of writing an ...(EIR)...."

19.11

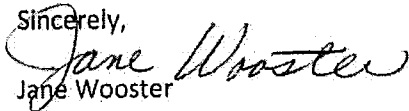
It seems to us that several of these items have not been addressed, either in the EIR or directly by the County.

We appreciate in advance your kind consideration of our comments. We have included a schematic that may help you visualize what we perceive as the road issue.

19.12

You may contact us at 831-385-5316 or 831-385-4177.

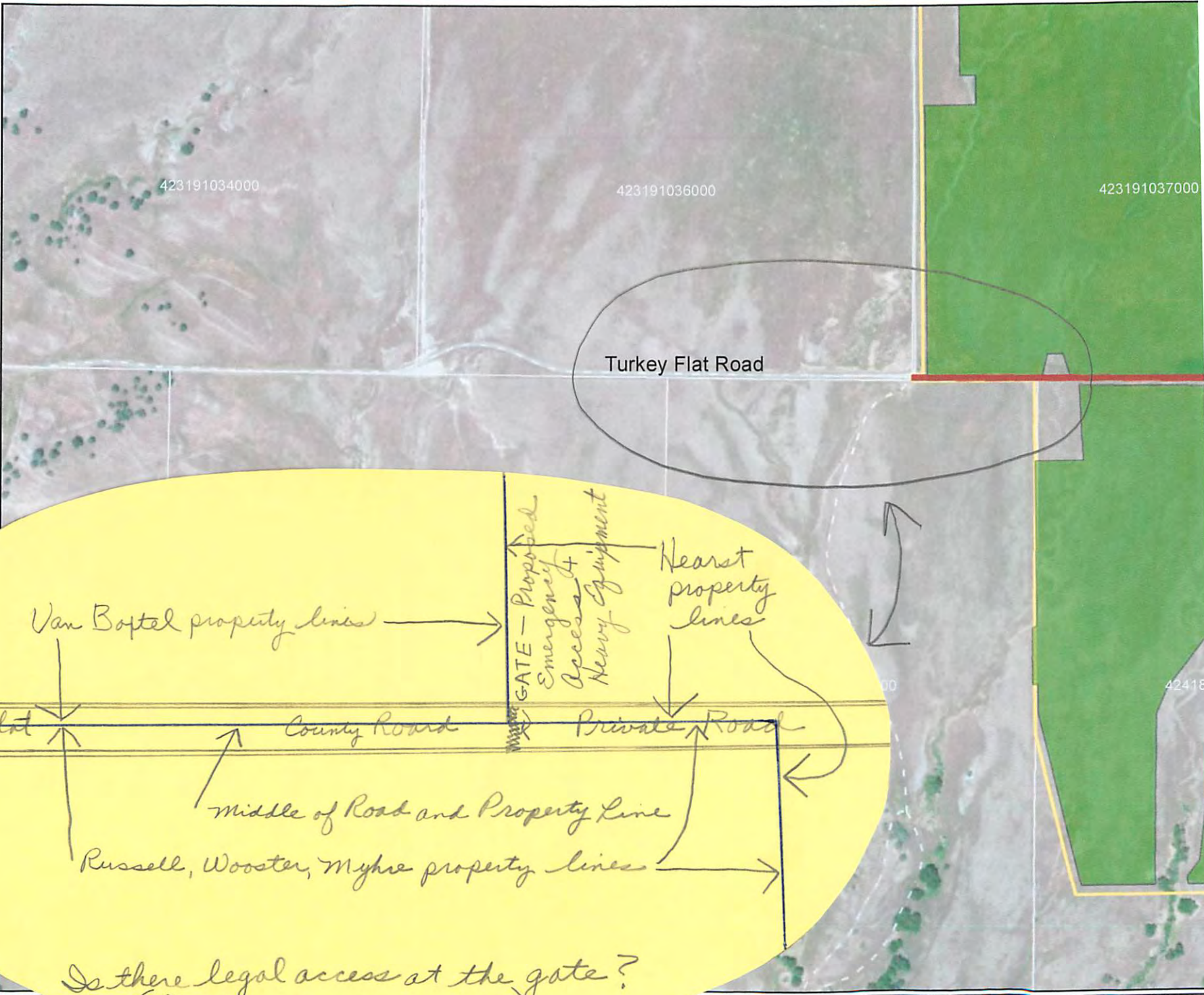
Sincerely,


Jane Wooster

Ann Myhre

Attachment

- 3
- 3 C4
- 3 D4
- 3 E4
- 3 F4
- 3 G4



System Line Corridor Improvements

000

USGS, Infrared, IGC, NRCAN, TomTom, 2013

Is there legal access at the gate?
 (Is it wide enough?)

2-706

Figure 2-4d

Letter 19

COMMENTER: Jane Wooster and Ann Myhre

DATE: September 19, 2014

Response 19.1

The commenters, whose family owns property adjacent to the proposed project, believe that the project would impair a pristine viewshed in a remote area. The commenters wonder why their views along a County road are not protected. Impact AES-2 in DEIR Section 4.1, *Aesthetics*, contains a discussion of the project's effects on views from private residences in the area. This discussion acknowledges that the proposed solar power facility would substantially degrade views from two private residences located approximately 775 feet from the project site boundary, near the eastern public road terminus of Turkey Flat Road. These residences are located slightly uphill from the project site, and have sweeping views of the existing project site. These private views would change from a rural ranch landscape to an expanse of solar modules and associated infrastructure.

However, the project site is not in a County-designated visually sensitive area and is not visible from a scenic roadway. The County of Monterey General Plan does not protect private views, and the scenic resources policies (contained in the Conservation and Open Space Element) do not expressly protect grazing land as a scenic resource. In addition, CEQA does not require a detailed evaluation of individual private views, particularly when only a limited number of private views would be affected by site development activities. Therefore, although some homeowners may experience adverse interference with their private views, the impact is not significant for purposes of the CEQA analysis due to the limited number of affected properties.

The commenters also express concern that the project would generate continuous low-level noise from solar panels. Please refer to Impact N-3 in DEIR Section 4.11, *Noise*, for a discussion of noise from the operation of PV solar arrays on the project site. As discussed therein, based on acoustic assessments of similar solar power projects, it is estimated that the private residences nearest to the project site (approximately 775 feet away) would be subject to noise levels of 35 dBA Leq or lower from the operation of inverters on the site. (Leq is a measure of noise levels averaged over a period of time, typically for one hour.) Comparing this operational noise level to the ambient noise levels in the project area (29 to 58 dBA Leq daytime), permanent noise levels in the project area would not increase substantially above existing ambient noise levels as a result of the proposed PV solar arrays.

Response 19.2

The commenters are concerned that in the event of safety issues during construction on-site, County sheriff, fire, and medical services would need to respond from far away, and that these services would be very expensive to provide. As discussed in DEIR Section 4.12, *Public Services*, fire protection services to the project site would be adequate during the peak fire season from May to October. Implementation of Mitigation Measure PS-1(a) for a Construction Management Plan would help to reduce demand for fire protection services through on-site fire suppression (including on-site equipment for fire suppression). In addition, Mitigation Measure PS-1(c) would



require the project applicant to enter into an agreement with the fire service provider to receive adequate services throughout construction during the non-peak fire season. These measures would ensure adequate fire protection and emergency medical services to the site during construction. Furthermore, the Monterey County Sheriff's Department would be able to serve the project site within adequate response times, whether arriving by Turkey Flat Road or SR 41. The commenters' concern about the high cost of providing public services to the project site does not pertain to the environmental analysis but will be forwarded to County decision-makers for their consideration.

Response 19.3

The commenters believe that their property, which is located adjacent to the project site and actively operated as a cattle ranch, and their livestock would be adversely affected by the project as proposed. Refer to the analysis contained in Sections 4.1, *Aesthetics*, 4.2, *Agricultural Resources*, 4.3, *Air Quality*, 4.9, *Hydrology*, 4.11, *Noise*, and 4.13, *Transportation*, for an analysis of impacts of the proposed project on adjacent properties.

Response 19.4

Table 1-1 in the DEIR summarizes a comment by Jane Wooster during the EIR's scoping period that a survey should be performed to determine if a proposed emergency access road intrudes onto the adjacent property. The DEIR states that this comment "does not pertain to an environmental impact" and therefore does not merit a further response. The commenters contend that this request is entirely within the scope of an EIR because the emergency road access involves a hazard if it is not available, it involves determining if public services such as fire protection are readily available, and it involves transportation and traffic for heavy equipment during construction. The project applicant is in the process of providing proof of access to the road in question. Proof of access will be required prior to project approval. This comment is noted and will be forwarded to County decision-makers for their consideration.

Response 19.5

The commenter believes that the proposed secondary access road includes a portion of their property on Monterey County Assessor's Parcel Number 424-181-011-000. The commenter asserts that, before approving the proposed project, the County should require the applicant to demonstrate that it has legal access to the secondary access road without crossing their property. The commenters do not think that their family should bear responsibility and liability for traffic over their private property. It is the commenters' understanding that the applicant has claimed to have a right to use the access road and, if not, would move the road over to its property. If the road is moved to the applicant's property, then the commenters request that the existing fence between their property and the applicant's be moved so that it is on the property line. The commenters request a barbed wire, six wire fences with steel pickets, and pipe corners and braces, similar to the existing fence.

The project applicant is in the process of providing proof of access to the road in question. Proof of access will be required prior to project approval.



Response 19.6

The commenters express concern about the proposed use of Turkey Flat Road as an access point for police and fire protection, due to traffic hazards from blind turns on this single-lane road. The commenters request that if the road were used for heavy equipment access during construction and for emergency access thereafter, then the County should require the applicant to pay to reconstruct the road in the most dangerous areas where it consists of one lane and it is impossible to see oncoming traffic. The commenters note that if private property owners are required to have a road wide enough for two fire trucks to pass, when building a personal residence, then roads serving an industrial operation such as the proposed project should at least meet this requirement.

As discussed in DEIR Section 2.0, *Project Description*, the proposed project would not involve use of Turkey Flat Road during construction, except for emergencies and one or two construction trips to deliver large equipment; heavy vehicles would almost exclusively enter the project site from SR 41 during construction. The ability of Turkey Flat Road to accommodate truck traffic and emergency vehicles is discussed on page 30 of Kimley-Horn's Traffic Analysis Report for the project (Appendix M to the DEIR). This report notes that Turkey Flat Road has sufficient width to accommodate truck and fire truck movements. Therefore, reconstruction of the road to serve the project would not be necessary.

Response 19.7

The commenters express concern about additional traffic and potential crime generated by the proposed project. It is the commenters' understanding that only two Monterey County sheriffs are currently on duty from Soledad south to the San Luis Obispo County line during nighttime hours. Please refer to response 19.2 for a discussion of the adequacy of County police service for the proposed project. As discussed therein, the Monterey County Sheriff's Department would be able to serve the project site within adequate response times, whether arriving by Turkey Flat Road or SR 41. A potential increase in crime, in and of itself, does not constitute an environmental impact subject to analysis under CEQA; however, this concern is acknowledged and will be forwarded to County decision-makers for their consideration.

Response 19.8

The commenters are concerned about the generation of dust and resultant exposure to anthrax and the fungus that causes Valley Fever to humans and cattle on nearby properties during construction of the proposed project. The commenters state that soil disturbance would certainly release *Coccidioidomycosis* spores, which become wind-borne and cause lung disease, and may release anthrax as well. Although the EIR includes mitigation to control dust on the site, the commenters believe that it neglects to consider how dust would be controlled on adjacent ground. Given the seriousness of these airborne illnesses, the commenters believe that the applicant should provide a buffer of at least 300 feet between their property and any disturbed surface on the project site. Further, the commenters request that the applicant assume the responsibilities of restitution for any animal deaths that are shown to result from these diseases and of paying medical bills for individuals who live near the construction area.



DEIR Section 4.3, *Air Quality*, acknowledges that the proposed project would result in significant but mitigable impacts from the generation of dust and resultant potential for airborne diseases such as Valley Fever. However, the proposed project would minimize potential hazards from the release of fungal spores by implementing standard construction Best Management Practices (BMPs) to reduce fugitive dust emissions and erosion control measures. In addition, Mitigation Measure AQ-2(a) would minimize the likelihood or extent of fugitive dust, thereby reducing the potential for exposure to construction personnel and off-site receptors. Mitigation Measures AQ-6(a-e) would further reduce health-related impacts from dust exposure to a less than significant level. A buffer between the project site and adjacent private properties would not be necessary to further reduce these impacts.

With regard to the comment about the release of anthrax, please refer to Impact HAZ-6 in DEIR Section 4.8, *Hazards and Hazardous Materials*, for a discussion of potential impacts from anthrax exposure. Though remote, the potential exists for anthrax spores to reside in the soil on or near the project site. Risks to project operations and maintenance personnel would occur if individuals were to come into contact with an expired anthrax-infected animal at the project site. This hazard would be substantially reduced by ensuring that livestock handling is limited to trained personnel, carcass disposal is immediate and follows accepted practices, and personnel are trained to understand the risk of handling animal carcasses. As these activities are considered standard grazing management procedures, impacts related to the potential for anthrax exposure would be less than significant.

The request that the applicant assume financial responsibility for airborne human or animal diseases near the construction area does not pertain to the environmental analysis but will be forwarded to County decision-makers for their consideration.

Response 19.9

The commenters express concern that the EIR does not state the location of the waste treatment facility. They suggest that this facility be placed in an area remote from Turkey Flat Road and where prevailing winds would not subject landowners on this road to drifting odors. The proposed project would not involve construction of a waste treatment facility. A septic system would be located near the operations and maintenance facility, which would not be located near Turkey Flat Road.

The commenters also express concern that the EIR does not state the widths of specific interior roads on the project site. They recommend keeping heavily traveled roads away from the site perimeter near Turkey Flat Road to cut down on dust. Please refer to response 19.8 for a discussion of impacts from dust generated by the proposed project.

During public meetings, the commenters state that they were informed that a line of trees would be planted between their property and the project site; however, the commenters see no mention of this feature in the EIR. They suggest that such a line of trees be planted and maintained by the applicant. It is assumed that this comment pertains to a concern about aesthetics and views from the commenters' private property. As discussed in Impact AES-2 in DEIR Section 4.1, *Aesthetics*, the proposed project would visually transform the existing character of the project site from a rural, ranching landscape, to a renewable energy development with associated infrastructure, and this



visual change would be visible to adjacent private properties. However, the impact is not significant for purposes of the CEQA analysis due to the limited number of affected properties. Nevertheless, this comment will be forwarded to County decision-makers for their consideration.

Response 19.10

The commenters express concern that an additional water well that would be drilled near their property may have a detrimental effect on a spring on their property, which is their only source of water. They request that this new well be drilled closer to where the water would be used and farther from their boundary fence. As discussed in DEIR Section 2.0, *Project Description*, the proposed solar facility could draw water from two existing wells and one potential new on-site well located to the west of the proposed switching station. The potential new well is not confirmed and its ultimate location would depend on final design and operational efficiencies. However, Impact HYD-3 in DEIR Section 4.9, *Hydrology and Water Quality*, finds that the Cholame Valley Groundwater Basin is not in a state of overdraft, and net groundwater recharge in the basin is estimated to be 35,478 acre-feet per year. Estimated water demand from the proposed project represents less than 1% of the net recharge during Year 1 of the project (the year with the greatest demand for water) and an estimated 0.0005% during all years following completion of construction. Therefore, even if the potential new well were built, construction and operation of the proposed project would not substantially deplete groundwater supplies or interfere with groundwater recharge. Relocating the potential new well to protect the spring on the commenters' property would not be necessary.

Response 19.11

The commenters reiterate nine concerns that were included in several emails sent to Monterey County Planner Taven Kinison Brown but are intended as public comments. The commenters express that the DEIR and the County have not addressed several of these items.

First, the commenters express concern about prime agricultural land, or the lack of such land on the suggested secondary site. Please refer to Impact AG-1 in DEIR Section 4.2, *Agricultural Resources*, for a discussion of impacts on important farmland, including prime farmland, and to Section 7.0, *Alternatives*, for an analysis of impacts from alternative sites.

Second, the commenters suggest an alternate site on the alkali Cholame Flats, which is a salt flat located in the Cholame Valley. DEIR Section 7.0, *Alternatives*, analyzes an Alternate Jack Ranch Site located three miles southwest of the project site in the lower, flatter portions of Jack Ranch adjacent to the Cholame Creek channel. However, the DEIR finds that this alternative would create greater environmental impacts than the proposed project. In addition, several other alternative sites were considered but rejected because they were either determined to be infeasible; would fail to meet most of the basic project objectives; or would not avoid, minimize, or reduce any of the potential significant and unavoidable environmental impacts of the proposed project. These alternative sites include two Department of Defense brownfield sites and six smaller brownfield sites in Monterey and San Luis Obispo counties. It should be noted that, in accordance with *CEQA Guidelines* Section 15126.6(a), "an EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation."



Third, the commenters request “specs” for the emergency exit. As discussed in DEIR Section 2.0, *Project Description*, secondary emergency access to the project would be provided from Turkey Flat Road, an existing paved local County road that terminates at the northwestern edge of the project site (refer to Figure 2-4d). Because no improvements are proposed to this access route, design details are not available for the entrance/exit to the project site at Turkey Flat Road.

Fourth, the commenters request information about the width of Turkey Flat Road. As stated in Impact T-6 in DEIR Section 4.13, *Transportation/Traffic*, the travel width of Turkey Flat Road is generally 20 feet on the project site but varies between 11 and 16 feet at creek crossings.

Fifth, the commenters request a copy of actions of the County Board of Supervisors regarding closure of Turkey Flat Road. This comment does not address an environmental issue but will be forwarded to County decision-makers for their consideration.

Sixth, the commenters ask whether or not having a secondary road access would be seen as a deficiency. As discussed in Impact T-6 in DEIR Section 4.13, *Transportation/Traffic*, compliance with existing local requirements would ensure that proposed access and internal site roadway widths would be sufficient to accommodate emergency vehicle access.

Seventh, the commenters question the accuracy of Element Power’s statement to the public that 5 acre-feet of water per year would be used. It should be noted that Element Power was acquired, and First Solar is now the applicant for the proposed project. As stated in Impact HYD-3 of DEIR Section 4.9, *Hydrology and Water Resources*, demand for water during operation and maintenance activities is projected to be 5 acre-feet per year (AFY), including 4.1 AFY for module washing, if washing is required, and 0.9 AFY for the operations and maintenance (O&M) facility’s potable water supply.

Eighth, the commenters ask about radiant heat from the solar panels and potential effects on the temperature of surrounding farmland. For a discussion of potential impacts from radiant heat on the local climate, please see response 16.112.

Lastly, the commenters express concern about the potential “bleeding” of electrical energy from solar panels, similar to high-tension power lines, and resultant health risks. According to researchers at the National Renewable Energy Laboratory, utility-scale solar PV arrays produce very low levels of electromagnetic fields (EMFs), comparable to low-voltage power lines (Brinkman and Margolis, 2009). PV panels produce weaker electromagnetic fields than household appliances such as televisions and refrigerators. Although inverters and power conditioning units in PV arrays produce substantial EMFs, the strength of these fields declines rapidly with distance. Relatively weak evidence exists linking EMF from high-voltage power lines to adverse health effects. However, the level of EMF produced from such power lines is much stronger than that produced by a solar array. Furthermore, a comprehensive 2013 study found no relationship between the incidence of cancer in adults and proximity to low-frequency magnetic fields from high-voltage overhead power lines, based on four types of cancer recorded in Britain’s National Cancer Registry between 1974 and 2008 (Elliot et. al., 2013).

The following two sources have been added to Section 8.0, *References*:



Brinkman, G., and R. Margolis, National Renewable Energy Laboratory, Health Effects of Electromagnetic Fields from Solar Photovoltaic Arrays, August 18, 2009, Available: http://www.oregon.gov/ODOT/HWY/OIPP/docs/solar_usdoememo.pdf

Elliot, P., G. Shaddick, M. Douglass, K. de Hoogh, DJ Briggs, and MB Toledano, Adult Cancers Near High-Voltage Overhead Power Lines, *Epidemiology*, 24(2): 184-190, March 2013.

Response 19.12

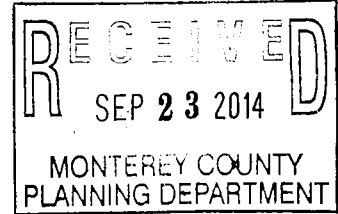
The commenters attached a schematic diagram to visualize the location of their private property with respect to proposed secondary access road. This documentation is noted and will be forwarded to County decision-makers for their consideration. Please refer to response 19.5 for a discussion of property rights concerning the access road.



Letter 20

Gonzales, Eva x5186

From: Ann Gaglioti [agaglioti@grndwork.com]
Sent: Monday, September 22, 2014 4:59 PM
To: Robinson, Delinda x5198; Ford, John H. x5158
Subject: Letter of Support - California Flats Solar Project



Ann Gaglioti
864 Portola Drive
Monterey, CA 93940

September 22, 2014

Delinda Robinson and John Ford
Monterey County Planning Department
168 W. Alisal St. 2nd Floor
Salinas, CA. 93901

VIA e-MAIL:
robinsond@co.monterey.ca.us
fordjh@co.monterey.ca.us

RE: California Flats Solar Project

Dear Ms. Robinson and Mr. Ford,

I am writing to express my strong support for the California Flats Solar Project. I have the unique purview of owning GroundWork Renewables, Inc., a Monterey-based company that specializes in providing meteorological stations to measure irradiance in support of utility-scale solar projects. Our data contributes to gigawatts of solar being built throughout the US. We proudly count First Solar among our clients.

The Annual Greenhouse Gas Bulletin released on September 9, 2014 by the World Meteorological Organization (WMO) reports a grim outlook for climate change and the United States inability to reduce our rate of emissions. Climate change will surely impact the lives of my two young children if we don't take every action. Of note, it is the first time that the bulletin has published the high rates of ocean acidification due to greenhouse gases. This is especially important to residents of Monterey County that enjoy the beauty and wildlife of Monterey Bay.

The California Flats project will offset 109,000 cubic metric tons of CO₂s per year. This project really will move the needle in reducing carbon use. And, projects like the California Flats Solar Project have helped the global PV panel market reach scale so that solar is cheaper for homes and businesses.

It is my sincere hope that the Monterey County Planning Department considers the children of Monterey County and their futures and decides that the California Flats Solar Project is in the very best interests of the County.

Sincerely,

Ann Gaglioti
CEO
GroundWork

w: 831.920.1687
c: 928.607.1501
<http://grndwork.com>

Letter 20

COMMENTER: Ann Gaglioti, CEO, GroundWork Renewables, Inc.

DATE: September 22, 2014

Response 20.1

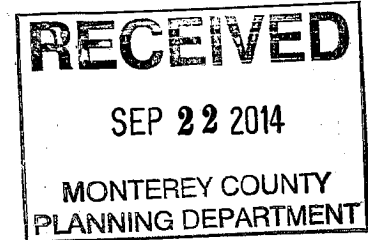
The commenter, who owns a Monterey-based company providing support for utility-scale solar projects, expresses support for the proposed project. The commenter states that the project would offset 109,000 cubic metric tons of CO₂ emissions per year, reducing the County's contribution to climate change and associated acidification of the oceans. In addition, the commenter asserts that the project would provide an economic benefit in helping the global PV panel market reach scale so that solar power is cheaper for homes and businesses. This comment is noted and will be forwarded to County decision-makers for their consideration.



Gonzales, Eva x5186

From: hunter12780@gmail.com on behalf of Cameron Hunter [cameronhunter27@gmail.com]
Sent: Monday, September 22, 2014 5:05 PM
To: Robinson, Delinda x5198; Ford, John H. x5158
Subject: Support for California Flats Solar Project

Cameron Hunter
662 Jessie St
Monterey CA 93940
(805) 245-1395



Sept 22, 2014

Delinda Robinson and John Ford
Monterey County Planning Department
168 W. Alisal St. 2nd
Salinas, CA. 93901

Re: California Flats Solar Project

Dear Ms. Robinson and Mr. Ford:

Please accept my comments in this letter as evidence of support from the community of Monterey County. I was excited to learn about the prospect of a utility scale solar development in our county, and I hope that you will consider the proposal favorably, especially as we purport ourselves to be a progressive and environmentally friendly area. The project's environmental and economic benefits are good for all of us in that our county would benefit from sales and use tax income; provide jobs over multiple years of construction; and generate millions in direct and indirect economic benefits over the life of the project

The idea that this project could provide 100,000 homes with clean renewable power is exciting and important to our community members as we see the risks of other forms of electricity generating energy, such as nuclear

power, as well as the offset of water used by thermal generators during so many years of drought here in California.

21.1

I hope that you consider how much community support there is for this project, and move forward as quickly as possible with its approval.

Sincerely,

Cameron Hunter

Letter 21

COMMENTER: Cameron Hunter

DATE: September 22, 2014

Response 21.1

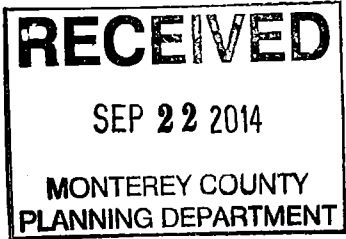
The commenter expresses support for the proposed project, citing environmental and economic benefits for Monterey County. This comment is noted and will be forwarded to County decision-makers for their consideration.



Letter 22

Gonzales, Eva x5186

From: Holly Temple [holly.mabry@me.com]
Sent: Monday, September 22, 2014 2:03 PM
To: Robinson, Delinda x5198; Ford, John H. x5158
Subject: California Flats



Delinda Robinson and John Ford
Monterey County Planning Department
robinsond@co.monterey.ca.us
fordjh@co.monterey.ca.us

Dear Ms. Robinson and Mr. Ford,

As a mother, it is scary for me to read the papers these days. With the stories of war, suicide bombings, the ebola virus and (especially) climate change, it is hard to have hope for our planet and my children's futures. But then just as I feel like I am about to lose hope, I hear of one individual or one event that could help change the world.

Today, that one thing is the California Flats Solar Project, a project that I see will not only curtail carbon emissions, provide jobs for the people of Monterey, and save water but will also move us all in the right direction.

"You must be the change you want to see in the world."
Mahatma Gandhi

The change I want to see in the world is more clean, renewable energy in Monterey County. I think it is important to recognize that yesterday, more than 400,000 people marched in New York City to support the environment. I wish I could have joined them, but instead I am thinking globally and acting locally by writing this letter.

Thank you very much for your consideration.

Sincerely,

Holly A. Temple
Carmel-by-the-Sea, CA 93921

22.1

Letter 22

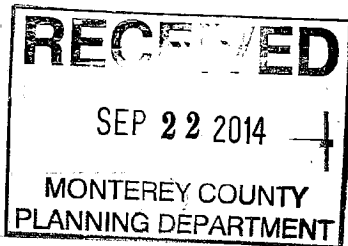
COMMENTER: Holly Temple

DATE: September 22, 2014

Response 22.1

The commenter expresses support for the proposed project, stating that it would curtail carbon emissions, provide jobs for the County, and save water. This comment is noted and will be forwarded to County decision-makers for their consideration.





Gonzales, Eva x5186

From: Kdlambeth@aol.com
Sent: Monday, September 22, 2014 6:25 PM
To: ceqacomments
Subject: Comments Re: DEIR For the California Flats Solar Project

To whom it may concern:

I am writing to comment on the above-cited document submitted regarding the California Flats Solar Project.

I have reviewed the DEIR and find it deficient in a number of areas and downright wrong in other areas.

First the analysis regarding aesthetics. The impact on aesthetics described focuses on the impact if the area were open to the public by way of trails, parks and roadways and concludes there are a minimal impacts that can be mitigated. This is patently false. First, the impact on residents nearby is not addressed and that impact would be severe and could not be mitigated. While the area under consideration for the project is not in a park or on a trail, the residents who live close by as well as nearby residents and travelers driving on Highway 41, Turkey Flat Road and Cholame Road would be able to see the ugly solar panels which would replace a view of grazing lands, creeks, etc. That is a severe impact on the aesthetics of the area that could not be mitigated. In addition, the nearby residents would be subject to extreme glare from the solar panels which would make it impossible to use their outdoor living areas, not to mention the danger to eyesight to which they would be subjected from the extreme glare of the solar panels. This is not addressed in the DEIR.

23.1

23.2

Valley Fever exposure is discussed in an extremely deficient way and, with the exception of one sentence, is focused on the workers who would be constructing the project. Furthermore, there is a statement which minimizes the severity and effects of Valley Fever. Valley Fever can and does kill people and, once a person is infected, is a systemic illness which can flare up at any time with varying degrees of severity. I know someone personally who was infected with Valley Fever three years ago. She almost died and her lung capacity has still not returned to normal levels. She continues under the care of a pulmonary specialist and an infectious disease physician, both of whom have told her she will have Valley Fever for the rest of her life. I know of others who have died from Valley Fever. It is a very serious condition. A number of workers who were involved in the installation of the California Valley Solar Project became infected with Valley Fever. As far as addressing the danger to nearby residents is concerned, the DEIR does not address how they would mitigate that risk at all. Because the spores that cause Valley Fever are airborne and because the area in question is routinely subject to substantial gusty winds (there is even a sign on Hwy. 41 warning drivers of these winds), nearby residents as well as travelers passing by, would be in danger of infection. to say the DEIR is deficient regarding this very serious and real risk is an understatement.

23.3

Regarding dangers to wildlife, again, the DEIR is astoundingly deficient. It does not address the danger to birds and various butterflies, including the endangered Monarch butterfly, from the excessive heat generated by the solar panels. It has been widely reported by various newspapers including The Washington Times, the Wall Street Journal, the Huffington Post, among others, that birds have been incinerated by the excessive heat as they fly over the solar panels. These articles point out how this is disturbing the balance of nature and that it occurs on a large scale. Some of the

23.4

many types of birds that have been found to have been incinerated include hummingbirds and other small birds, hawks, and owls, among others. Estimates of the number of birds killed by solar projects range from 1,500 a year to 28,000 a year. The smaller number represents the estimate of solar project operators and the larger number represents the estimate of environmental groups. **I believe the environmentalists' estimate is more accurate as they do not have a monetary stake in the perpetuation of these solar projects.** Observers at the Ivanpah solar project in the Mojave describe seeing "...hundreds and hundreds of butterflies, including Monarchs, killed." None of this is addressed **at all** in the DEIR for the California Flats Solar Project. This danger to birds cannot be mitigated as it is caused by the very functioning of the solar panels which generate temperatures of 800 degrees Fahrenheit and greater above them. In addition, birds often mistake solar panels for water and are incinerated as they fly over the panels thinking they are going to a water source.

23.4

Solar projects are heavily subsidized by the Federal Government. As a taxpayer, I object strenuously to these large scale projects because of the harm they do to the environment, the wildlife in the area and the residents and travelers who must look at the ugliness of them instead of a beautiful natural landscape. I urge you to decline to grant a permit to the developers of this very harmful project.

Kathleen D. Lambeth
6465 Via Escondida
San Miguel, CA 93451
Phone: 805-467-2784

Letter 23

COMMENTER: Kathleen Lambeth

DATE: September 22, 2014

Response 23.1

The commenter states that the DEIR does not address a severe and unmitigable aesthetic impact on residents near the project site and motorists on SR 41, Turkey Flat Road, and Cholame Road. As discussed in DEIR Section 4.1, *Aesthetics*, the County of Monterey General Plan does not protect private views, and CEQA does not require a detailed evaluation of individual private views, particularly when only a limited number of private views would be affected by site development activities. Therefore, although some homeowners may experience adverse interference with their private views, the impact is not significant for purposes of the CEQA analysis due to the limited number of affected properties. For drivers traveling along SR 41, construction equipment and staging areas would temporarily be visible; however, the completed roadway improvements would be consistent with the existing roadway infrastructure. In addition, both Turkey Flat Road and Cholame Valley Road generally have very limited views of the project site and lack common public viewing areas of the project site.

Response 23.2

The commenter expresses an opinion that nearby residents would be subject to extreme glare from the proposed solar panels, making it impossible to use their outdoor living areas and endangering their eyesight. Whether the proposed solar panels are installed in a fixed position or use trackers to follow the sun, the off-site residences near the project site would experience minimal glare, based on the direction and tilt of the panels. In addition, photovoltaic modules are designed to absorb light to the highly concentrated photovoltaic material, rather than reflect it outward, resulting in minimal off-site glare. For further discussion of glare, please refer to Impact AES-4 in DEIR Section 4.1, *Aesthetics*, which finds that glint and glare from solar modules would not significantly adversely affect the existing visual receptors in the area.

Response 23.3

The commenter states that the DEIR does not adequately describe the severity of risk from exposure to Valley Fever or address how to mitigate the risk to nearby residents. A number of workers involved in installation of the California Valley Solar Project, the commenter notes, became infected with Valley Fever. The commenter finds that nearby residents and travelers would be in danger because the spores that cause Valley Fever are airborne and because of gusty winds in the area. DEIR Section 4.3, *Air Quality*, notes that a total of 28 cases of Valley Fever occurred in San Luis Obispo County in 2013, including 25 cases from the California Valley Solar Project. However, the proposed project would minimize potential hazards from the release of fungal spores by implementing standard construction Best Management Practices (BMPs) to reduce fugitive dust emissions and erosion control measures. Mitigation Measure AQ-2(a) would minimize the likelihood or extent of fugitive dust, thereby reducing the potential for exposure to construction personnel and off-site receptors. In addition, Mitigation Measure AQ-6(e) requires the



project applicant to develop an educational handout for surrounding residents within three miles of the project site, which would disclose potential sources/ causes, common symptoms, options or remedies available should someone be experiencing these symptoms, and where testing for infection is available. Mitigation Measure AQ-6(e) requires that this handout be mailed to all existing residences within three miles of the project boundaries no less than 30 days prior to any surface disturbance (e.g., grading, filling, trenching) work commencing. Mitigation Measures AQ-6(a) through AQ-6(e) would further reduce impacts to a less than significant level.

Response 23.4

The commenter states that the DEIR does not address the danger to birds and butterflies, including the endangered Monarch butterfly, from excessive heat generated by solar panels. The commenter says that solar projects are estimated to kill between 1,500 and 28,000 birds per year. According to the commenter, observers at Ivanpah solar project in Mojave Desert have described hundreds of deaths of Monarch butterflies. The commenter finds that these impacts are not mitigable. It should be clarified that the Ivanpah solar plant uses mirrors to concentrate and focus solar radiation, which can generate substantial amounts of heat above the facility. The proposed project would not use such technology. In addition, although Monarch butterflies have recently declined in population, they are not currently a protected species under the state or federal Endangered Species Acts. Therefore, potential impacts to this species are not discussed in the EIR.

Please refer to response 16.65 for a discussion of collision mortality from birds mistaking solar panels for open sky or water, and response 16.112 for a discussion of radiant heat from solar panels.



Robinson, Delinda x5198

From: Tristan Mabry [mabryt@mac.com]
Sent: Monday, September 22, 2014 11:00 AM
To: Robinson, Delinda x5198; Ford, John H. x5158
Subject: Public Support for the California Flats Solar Project

Tristan James Mabry, PhD

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P.O. Box 6265

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September 22, 2014

Delinda Robinson and John Ford

Monterey County Planning Department

168 W. Alisal St. 2nd Floor

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VIA e-MAIL:

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RE: California Flats Solar Project

Dear Ms. Robinson and Mr. Ford,

As I read the news this morning, I see more than 300,000 people marched on the United Nations yesterday demanding urgent environmental policy reform, including but not limited to the use of clean, renewable energy. At this point, my memory was jarred to recall the excellent effort to build a solar energy project right

24.1

here in Monterey County. I am simply writing as a local citizen – a homeowner and (importantly looking forward to coming generations who will bear the brunt of climate change) a father of two young daughters – to express my strong support for the California Flats Solar Project.

Of course, there are many other financial reasons to support this effort – including jobs, economic growth, and expanded tax revenue – but I understand there is (bewildering) opposition from some in the environmental community who reject development of any kind. This is the worst form of not-in-my-backyard thinking. I should think everyone in Monterey County would be proud of such a positive and path-breaking step forward for our environment, noting especially that the Project will also save vast amounts of precious water (as opposed to conventional power generation).

It is my sincere hope that the Monterey County Planning Department considers the many benefits of the California Flats Solar Project – both environmental and economic – and ultimately decides this remarkable effort is in the very best interests of the County.

Sincerely,

Tristan James Mabry, PhD

24.1

Letter 24

COMMENTER: Tristan James Mabry, Ph.D.

DATE: September 22, 2014

Response 24.1

The commenter, a resident of Monterey County, expresses support for the proposed project, for the purposes of addressing climate change and providing jobs, economic growth, and expanded tax revenue. The commenter adds that the project would save vast amounts of water when compared to conventional power generation. This comment is noted and will be forwarded to County decision-makers for their consideration.



3.0 MASTER RESPONSES

This section presents detailed responses to comments that were made by more than one commenter where more than one commenter was making the same general statement of concern. Response to specific comment letters may refer the commenter to one or more of the general responses.

3.1 MASTER RESPONSE 1: ADEQUACY OF BIOLOGICAL SURVEYS

Comment letters submitted by Adams, Broadwell, Joseph and Cardoza (Letter 12), the California Native Plant Society (Letter 13), and Conservation Organizations (a joint comment letter from Audubon California, Center for Biological Diversity, CNPS, Defenders of Wildlife and the Sierra Club; Letter 15) included one or more comments regarding the insufficiency of biological studies, noting that full protocol-level surveys were not completed for a variety of species. Response to comments on the specific details of some surveys have been addressed directly for each comment; however, this general response addresses the adequacy of biological surveys in general, and why protocol-level surveys are not required to evaluate the potential for impacts to special status plant and wildlife species.

The EIR environmental setting is based on expert review of data contained within a number of biological resource databases, available literature on species known to occur in the project vicinity, and a wide variety of surveys designed specifically to meet the site and environmental conditions that included reconnaissance-level surveys, general wildlife surveys, protocol-level surveys, modified protocol surveys, and focal surveys that meet or exceed the level of detail contained in recommended protocol-level surveys. The purpose of the database/literature review and field surveys was to evaluate the project site for the potential to support special status species and assess the potential for impacts to those species that are known to occur or may occur on the project site. A robust and thorough evaluation of biological resources was conducted that involved extensive field surveys between 2011 and 2014, including:

- *Reconnaissance site surveys*
- *Full coverage ground surveys for wildlife and burrows*
- *Mammal habitat assessment*
- *Vegetation community mapping*
- *Protocol-level and focused rare plant surveys*
- *Jurisdictional waters survey and delineation*
- *Vernal pool surveys*
- *Reptile and amphibian reconnaissance surveys*
- *CTS and CRLF aquatic larval surveys*
- *Small mammal trapping surveys*
- *Kangaroo rat genetic analyses*
- *Wet and dry season branchiopod surveys*
- *Spotlight wildlife surveys*
- *Camera station wildlife surveys*
- *CRLF surveys*
- *CTS habitat assessment*



- *Ground-based raptor nest surveys*
- *Helicopter-based raptor nest surveys*
- *Avian activity surveys*
- *Scent-dog kit fox surveys*

These surveys along with available existing information on the occurrence of special status species in the region as discussed in Section 4.4, *Biological Resources*, of the DEIR and referenced in the supporting biological technical reports, and the physical and biological characteristics of the project site identified during field surveys, provide a thorough evaluation of the vegetation communities and wildlife habitats present within and adjacent to the project site. Because of the large size of the study area (roughly 5,000 acres), the site and environmental specific conditions encountered during the period of analysis, the evaluation of biological resources well in advance of construction activity, the adoption of a precautionary approach that does not rely on documenting evidence of absence, and the phased timing of construction activity, protocol surveys were not completed for all potentially occurring species. The biological studies fully evaluated the potential for special status species to occur on the project site and identified suitable habitat for special status species. Based on these evaluations, the DEIR presented a comprehensive and precautionary assessment in favor of resource protection of the potential for special status species to occur on the project site, and evaluated the potential impacts to those species that would or could result from project development. Furthermore, the proposed avoidance and mitigation provides for additional surveys (e.g., focused protocol surveys, pre-construction surveys) to ensure up to date, site-specific information is used when implementing avoidance, minimization, and mitigation strategies, or assumes impacts to special status species where surveys have not or could not be completed prior to preparation of the DEIR, but where available information suggests impacts could occur.

Letters 12 and 15 note that some surveys identified in the Biotic Report (H.T. Harvey [HTH] 2014b; DEIR Appendix E.1) were not completed at the time of DEIR publication, and a comment in Letter 12 states that “the DEIR cannot be considered a robust and comprehensive analysis of biological resources until the surveys have been adequately conducted, documented, and vetted by the public and resource agencies” (comment 12.A.2). Not all surveys or reporting had been completed at the time the DEIR was in preparation, and survey work is ongoing at the project site in conformance with avoidance, minimization, and mitigation measures outlined in the DEIR. However, conducting all possible surveys and conducting full protocol surveys for all potentially occurring species is not required under CEQA. In *Association of Irrigated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, the Court specifically addressed whether protocol-level surveys were required to adequately determine the significance of impacts to special status species in an EIR and concluded that they were not required. According to the Court, “CEQA does not require a lead agency to conduct every recommended test and perform all recommended research to evaluate the impacts of a proposed project. The fact that additional studies might be helpful does not mean that they are required.” When there is sufficient information regarding the biological resources on-site to determine potential impacts, as is the case here, further studies are not required under CEQA. The DEIR identified the potential for a special status species to occur on the project site, characterized the risks to those species based on the disturbance associated with the proposed project activity, and provided mitigation to address potential impacts. Mitigation may require further protocol surveys or preconstruction surveys (appropriately timed for proposed construction schedules to ensure avoidance of impacts to special status species) and/or



requires avoidance and mitigation for species that are assumed present because suitable habitat is present and protocol surveys were not conducted to document absence.

3.2 MASTER RESPONSE 2: ADEQUACY OF RARE PLANT SURVEYS

Letters 12, 13, and 15 each raised concerns with the timing, extent, and completeness of rare plant surveys. The DEIR presents the results of reconnaissance surveys that identified and mapped vegetation communities and special status species habitats within the project site, as well as rare plant surveys conducted by HTH in 2013. Additional rare plant surveys have been completed by HTH in 2014, and the results are presented in the attached 2014 Special Status Plant Survey Report (HTH 2014h; FEIR Appendix E.15). Vegetation communities and soils were mapped in advance of the preparation of the DEIR to provide sufficient context to assess the potential for occurrence of, and impacts to special status species from project development. Rare plant surveys over the majority of project impact areas were conducted in advance of DEIR preparation in order to identify any state or federally listed species that may require take authorization, and the remaining impact areas were surveyed to a protocol-level during DEIR preparation as timing required these take place during appropriate blooming periods for the target species. As discussed in General Response 1 above, it is not necessary to conduct all recommended research to evaluate impacts under CEQA; rather, sufficient analysis must be undertaken to identify potential impacts to special status species, and identify suitable avoidance and mitigation measures. Early season 2013 surveys covered the entire project site and identified areas with suitable conditions for later blooming special status plant species. The botanical survey specialists were thus able to identify the few sites that provided potentially suitable habitat for late-blooming target species, and therefore latter surveys (June and July 2013) required a reduced, but focused survey effort. Additionally, nonflowering individuals of target genera (e.g., *Atriplex*, *Chorizanthe*, *Eriogonum*) were marked for revisit during the initial transect surveys, allowing surveyors to go back and check individual plants or populations at a later date. In many cases, the later-blooming species prefer hillier habitats, outside of the direct impact areas of the project, or strongly alkaline/saline wetlands, which occur only rarely on the project site.

Reference population checks were performed on 23 days over the course of the 2013 rare plant survey, from March through June (Table 6, HTH 2013 Rare Plant Report, DEIR Appendix E.6). Reference checks were typically completed by a pair of botanists, although sometimes a single botanist visited a population site or a team of three or more botanists was dispatched. The actual hours spent conducting reference population checks are harder to determine than survey person-hours, because travel between sites is typically involved. However, it is estimated that approximately 175 person-hours of effort were expended in conducting reference population checks in 2013. This sum estimates the efforts at actual reference sites, and excludes travel time, general phenology checks prior to flowering, and the survey team visits to known, nearby target species' occurrences, which provided survey search images to all surveyors. Many reference populations were checked multiple times (and for some species, at multiple reference locations) to be effective in timing of surveys and revisits (Table 7, HTH 2013 Rare Plant Report, DEIR Appendix E.6).



Similar levels of effort in monitoring reference populations occurred during the 2014 rare plant surveys as reported in the attached 2014 Special Status Plant Survey Report (HTH 2014h, FEIR Appendix E.15), during which reference populations were monitored on 16 days over spring and early summer. HTH estimates that 125 hours were expended in monitoring reference populations in 2014 (excluding travel time). In 2014, the survey crew benefitted from the prior year's reference population work and surveys. By 2014, many sites close to the project had been identified as supporting target species, and could be visited quickly. Reference site visits provided confirmation that the majority of special status plants with potential to occur in the biological study area (BSA) were readily identifiable during site surveys. Taxonomic expertise and leadership was provided by the same qualified and experienced botanists who had conducted the surveys and reference population monitoring the previous year (resumes for Plant Ecologists Chris Winchell and Colin Wilkinson are provided in Appendix C of the attached 2014 Special Status Plant Survey Report [HTH 2014h, FEIR Appendix E.15]). Known occurrences of many species were visited on multiple dates and at multiple locations in 2014 (Table 6, attached 2014 Special Status Plant Survey Report [HTH 2014h, FEIR Appendix E.15]).

Regional contextual surveys were brief and focused, and, in 2013, were conducted outside the peak bloom period for the target species (those expected to be affected by the project based on preliminary survey results) (HTH 2013 Rare Plant Report, DEIR Appendix E.6). Surveyors' search images for the target species were well developed, and substantial numbers of shining navarretia (*Navarretia nigelliformis* sp. *radians*) and round-leaved filaree (*California macrophylla*) were located during these surveys, which was the basic goal of this survey method (not protocol). Because of the non-protocol nature of these surveys and the desire to cover as much ground as possible during the sampling effort, usually only points were recorded in association with a population estimate, so acreages were not calculated for these 2013 regional contextual surveys.

In 2014, a much expanded level of effort was employed in the regional contextual surveys. This time, a team of six to seven surveyors thoroughly canvassed survey areas (which are not shown in the report out of respect for private landowner privacy concerns). The areas amounted to 8,714 acres of land outside the project's BSA, and were surveyed over 15 days in the target species' peak bloom period, from April through May (Tables 4 and 5, of the attached 2014 Special Status Plant Survey Report, HTH 2014h; FEIR Appendix E.15). An estimated 720 person-hours were expended for the 2014 regional contextual surveys alone (again, excluding travel time). In total, more than 16,000 acres (25 square miles) of land outside and within 10 miles of the BSA were surveyed over the two years to provide a detailed regional context for project impacts.

Despite comparatively low precipitation levels, rare plant surveys conducted in 2013 and 2014 were robust, and in conjunction with vegetation community mapping, soil mapping and site topography, provided a suitable and appropriate evaluation of the potential for state and federally listed species to occur on-site. Despite the low yearly precipitation total, timing of 2014 precipitation was optimal to promote growth of native annual vegetation, and some species not previously confirmed at reference sites were abundant during 2014 site surveys, and other target species were more abundant in 2014 than had been detected in 2013, as discussed in the 2014 Special Status Plant Survey Report (HTH 2014h; FEIR Appendix E.15). Total rainfall does not predict fluctuations in plant population size as well as the temperature following the first major rain event does (Levine et al. 2008), and as such is not necessarily the best indicator of a poor survey season, which instead is provided by the detectability of target species at nearby reference



populations. Regardless, low rainfall totals for years in which plant surveys were conducted were disclosed in the DEIR and noted in evaluation of special status species potential to occur. These surveys, with their extremely high effort in reference population surveys, in conjunction with the regional surveys, also provided a sufficient evaluation of the potential population-level impacts to non-listed species. While the presence or absence of many special status plant species had not yet been determined in the additional impact areas outside the 2013 protocol survey area at the time of DEIR preparation, the potential for occurrence can be, and was, evaluated for the DEIR. Currently, HTH 2014h provides a source of information for species presence and absence for the FEIR that encompasses all impact areas. Impacts have been identified and mitigation measures have been developed based on the potential for special status plant species to occur on the project site. The 2014 rare plant surveys discussed in HTH 2014h satisfy the requirements of Mitigation Measure B-1(c) in Section 4.4, *Biological Resources*, of the DEIR for the additional impact areas for the project. This mitigation measure also requires preconstruction surveys (a standard practice for addressing potential impacts to special status species) for rare plants prior to ground disturbance if more than two years has elapsed since the completion of the 2013 protocol surveys and the initiation of ground disturbance, which would provide further information for avoidance and mitigation of potential impacts to special status plant species.



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4.0 AMENDMENTS TO THE EIR

The following pages provide a summary record of all proposed text amendments to the Draft EIR. Most amendments are the result of comments received during the public review period, and directly respond to those comments. These amendments serve as clarifications and amplifications on the content of the EIR. None of the changes would warrant recirculation of the EIR pursuant to CEQA Guidelines section 15088.5. The amendments serve to clarify and strengthen the content of the EIR, but do not introduce significant new information.

Changes in text are signified by strikeouts (~~strikeouts~~) where text is removed and by underlined font (underline font) where text is added. Other minor clarifications and corrections to typographical errors are also shown as corrected in this format, including corrections not based on responses to comments.

4.1 AMENDMENTS TO THE DRAFT EIR

Executive Summary

Amendments made to Table ES-1 in the *Executive Summary* are shown on the following pages (note only amended mitigation measures are shown).



**Table ES-1
 Summary of Significant Environmental Impacts,
 Mitigation Measures, and Residual Impacts**

| Impact | Mitigation Measure | Residual Impact |
|--|--|---|
| <p>Impact AQ-2 Construction of the proposed project would result in the temporary generation of air pollutants, which would affect local air quality. Short-term emissions of NOX and PM10 during the construction period would exceed MBUAPCD thresholds. Impacts would be Class I, significant and unavoidable. [Threshold 2]</p> | <p>AQ-2(a) Dust Control Measures. The project applicant and/or contractor shall be responsible for implementing the following mitigation measures throughout the duration of construction. Prior to the issuance of any grading permit, the project applicant and/or contractor shall submit construction drawings to the Monterey County RMA – Planning Department and RMA – Building Services for review and approval that include the following measures on all plans and specifications:</p> <ul style="list-style-type: none"> • The grading plan design shall minimize the amount of disturbed area to the extent feasible; • Water trucks or sprinkler systems shall be used in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency shall be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water shall be used whenever possible; • In order to avoid long distances and associated travel time between source wells and the work area, the project applicant shall employ the use of on-site temporary pipelines, <u>stand tanks or other measures to reduce water truck travel on unstable, disturbed surfaces to move water to the current work area and thereby reduce fill times for water trucks;</u> • To best address fugitive dust proximal to workers, the project applicant shall establish clear boundaries for the assignment of dust control as between the principal EPC contractor and subcontractors. The subcontractors shall be required to maintain dust control in their work area. Maps showing each contractor’s area of responsibility for dust control shall be distributed as work areas change. These maps shall be given to each water truck driver in an effort to reduce duplication of efforts while assuring full coverage. Water trucks will be assigned to specific crews or areas. In addition, each water truck driver shall be equipped with a radio to respond to any area that is experiencing dust or equipment operations that require additional dust suppression measures; • The project applicant shall maintain a 15 mph speed limit on roads where water application is the sole form of dust control, and shall post signs to remind workers throughout the work areas. The project applicant shall monitor to ensure compliance with the speed limit. As an additional measure, all of the cart operators shall be required to complete a <u>buggy cart training course</u> prior to operation of <u>any vehicle carts</u> on site; • Water truck operations shall adjust their spraying methods according to the conditions. For example, during windy conditions trucks should point the water spray downward. In silty soils, trucks should use light front spray | <p>Air emissions calculations were performed for both before and after the incorporation of the above-identified mitigation measures. The mitigation measures include those typically required by CARB and the MBUAPCD for NO_x (such as use of off-road equipment with Tier 3 # engines) and PM₁₀ (such as watering program for dust control). As shown in Table 4.3-5, despite implementation of mitigation measure AQ-2(a), <u>AQ-2(b), and AQ-2(c)</u>, temporary construction emissions would continue to exceed MBUAPCD thresholds for NO_x and PM₁₀. In addition, due to the proximity of the site to other air basins, construction emissions could potentially impact air quality in those air basins. No other feasible measures are available that would further reduce construction emissions. <u>Implementation of Mitigation Measures AQ-2(a), AQ-2(b), and AQ-2(c) would help maintain compliance with MBUAPCD Rule 402. Therefore However, due to the exceedance of MBUAPCD thresholds for construction activity,</u> impacts would remain significant and unavoidable during construction.</p> |



**Table ES-1
Summary of Significant Environmental Impacts,
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| Impact | Mitigation Measure | Residual Impact |
|--------|---|-----------------|
| | <p>followed by the heavier back spray. In clay soils, a heavy spray is applied well before traffic is expected in the area. This set of techniques shall be conveyed to new water truck operators when they arrive to the work site;</p> <ul style="list-style-type: none"> • Where access by water trucks is limited by structures or conditions, hand-operated water tanks (i.e. water buffalos) shall be used to provide dust control. Hand-operated water tanks can be used to apply water directly to the work area by crew members; • Heavy construction equipment traveling on <u>unstabilized dirt</u> roads on the project site shall be preceded by a water truck to dampen roadways and reduce dust from transportation along <u>such on-site dirt</u> roads; • All dirt stock pile areas shall be sprayed daily as needed; • Permanent dust control measures identified in the proposed Habitat Restoration and Revegetation Plan [refer to Biology Mitigation Measure B-2(b)] shall be implemented as soon as possible following completion of any soil disturbing activities; • Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established; • All roads shall be stabilized using gravel, <u>non-toxic</u> chemical soil binders (e.g., latex acrylic copolymer), jute netting, or other methods approved in advance by the Monterey County RMA – Planning Department. <u>If necessary, the Monterey County RMA – Planning Department may refer to the list of approved dust control suppressants in the SLOAPCD CEQA Air Quality Handbook Technical Appendix 4.3.</u> For all structure pads and other areas to be paved, seeding or soil binders shall be used if construction or paving will not occur within 10 days of grading; • Install track-out control devices where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site; • Sweep paved/unpaved roadways boundaries (e.g. project entrance roadways) at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water shall be used where feasible; • All of these fugitive dust mitigation measures shall be shown on grading and building plans; and • The contractor or builder shall designate <u>a site dust manager</u> and up to four persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. As necessary, the monitor shall have the authority | |



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|--------|--|-----------------|
| | <p>to require additional dust control measures be implemented. The monitor shall file monthly reports to the Monterey County RMA – Planning Department, including a daily log documenting monitoring activities, exceedances, and measures taken to reduce dust emissions. Their duties shall include weekdays, holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the Monterey County RMA – Planning Department and the APCD Compliance Division prior to the start of any grading, earthwork or demolition. <u>In addition, the log of monitoring activities shall be provided to APCD for confirmation that dust control measures are meeting the requirements of Rule 402.</u></p> <p>AQ-2(b) Emission-Reduction Measures for Construction Equipment Idling Restrictions. The Project Applicant and/or Contractor shall be responsible for implementing the following mitigation measures throughout the duration of construction. Prior to the issuance of any grading permit, the Project Applicant and/or Contractor shall submit construction drawings to the Monterey County RMA – Planning Department and RMA – Building Services for review and approval that include the following measures on all plans and specifications:</p> <ul style="list-style-type: none"> • Idling Restrictions Near Sensitive Receptors for Both On and off-Road Equipment (applicable to northernmost edge of the project site only), including: <ul style="list-style-type: none"> ○ Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors; ○ Diesel idling within 1,000 feet of sensitive receptors is not permitted; ○ Use of alternative fueled equipment is recommended whenever possible; and, ○ Signs that specify the no idling requirements must be posted and enforced at the construction site. • <u>Operational NO_x and Diesel PM Emissions Reduction Measures for Construction Equipment</u> <ul style="list-style-type: none"> ○ <u>All construction equipment shall be maintained in proper tune according to manufacturer’s specifications;</u> ○ <u>All off-road and portable diesel powered equipment shall be fueled with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);</u> | |



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| | <ul style="list-style-type: none"> ○ <u>Use of on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines;</u> ○ <u>On- and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5-minute idling limit;</u> ○ <u>Use of electrically-powered equipment when feasible;</u> ○ <u>Gasoline-powered equipment shall be substituted in place of diesel-powered equipment, where feasible; and</u> ○ <u>If available, use of alternatively fueled construction equipment on-site, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.</u> <p><u>AQ-2(c) Tier 3 Construction Equipment.</u> <u>All off-road construction diesel engines not registered under the California Air Resources Board's Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower (hp) or more, shall meet, at a minimum, the Tier 3 California Emissions Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, section 2423(b)(1) unless such engine is not available for a particular item of equipment.</u></p> <p><u>Construction or trucking companies with fleets that do not have engines in their fleet that meet the Tier 3 standards identified in the above two measures (e.g. captive or NOx exempt area fleets) may be eligible by proving alternative compliance. If a Tier 3 (or equivalent alternative compliance) engine is not available for any off-road engine larger than 50 hp, that engine will have tailpipe retrofit controls that reduce exhaust emissions of NO_x and PM to no more than Tier 2 emission levels. Tier 1 engines will be allowed on a case-by-case basis only when the project applicant has documented that no Tier 2 equipment or emissions equivalent retrofit equipment is available for a particular equipment type that must be used to complete project construction. This shall be documented with signed written correspondence by the appropriate construction contractor along with documented correspondence with at least two construction equipment rental firms. A list of the construction equipment and the associated EPA Tier shall be submitted to the County of Monterey RMA-Planning Department prior to the issuance of a grading permit to verify implementation of measure.</u></p> | |



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|---|--|--|
| <p>Impact AQ-4 The project would not expose sensitive receptors to substantial pollutant concentrations associated with construction dust, carbon monoxide hotspots, toxic air contaminants, or naturally-occurring asbestos. Impacts related to localized pollutants would therefore be Class III, less than significant. [Threshold 4]</p> | <p>No mitigation measures are required. Mitigation Measures AQ-2(a), and AQ-2(b), and AQ-2(c) would further reduce exposure of sensitive receptors to substantial pollutant concentrations.</p> | <p>Impacts would be less than significant without mitigation.</p> |
| <p>Impact AQ-6 Construction activities could generate dust and expose sensitive receptors to potential health hazards associated with the <i>Coccidioides</i> fungus (Valley Fever). Impacts related to Valley Fever would be Class II, significant but mitigable. [Threshold 4]</p> | <p>AQ-6(a) Valley Fever Management Plan. AQ-6(a) Valley Fever Management Plan. The project applicant shall <u>identify and retain a licensed occupational medicine physician (M.D.) specializing in pulmonary epidemiology, subject to approval by the</u> consult with the Monterey County Health Department (Health Officer), the MBUAPCD, and the California Occupational Safety and Health Administration (Cal/OSHA) Compliance Program to assist with the <u>development and implementation of a Valley Fever Management Plan (VFMP). The VFMP shall that includes a job hazard analysis [in compliance with California Occupational Safety and Health Administration (Cal/OSHA) regulations] for any worker that will be exposed to dust. The VFMP shall further include specific measures to reduce the potential for exposure to Valley Fever. The project applicant and the Monterey County Health Department may consult with MBUAPCD and the Cal/OSHA Compliance Program as needed in identifying a specialist M.D. and in developing the VFMP.</u></p> <p>Prior to issuance of grading permits, the applicant shall submit the Valley Fever Management Plan VFMP to the Monterey County RMA—Planning Health Department for review and approval. The Valley Fever Management Plan VFMP shall include a program to evaluate the potential for exposure to Valley Fever from construction activities and to identify appropriate dust management and safety procedures that shall be implemented, as needed, to minimize personnel worker and public exposure to potential Valley Fever-containing dust potentially containing the <i>Coccidioides</i> spore. Measures in the Valley Fever Management Plan VFMP, which shall be implemented as applicable may include the following:</p> <ul style="list-style-type: none"> • Provide HEP-filtered air-conditioned enclosed cabs on heavy equipment. Train workers on proper use of cabs, such as turning on air conditioning | <p>The required mitigation measures, in combination with Mitigation Measure AQ-2(a), would minimize the risk of exposure for construction personnel and off-site receptors to a less than significant level.</p> |



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| | <p>prior to using the equipment.</p> <ul style="list-style-type: none"> • Provide communication methods, such as two-way radios, for use in enclosed cabs. • Provide National Institute for Occupational Safety and Health (NIOSH)-approved respirators for workers. • Conduct a job hazard analysis in compliance with Cal/OSHA regulations for any worker that will be exposed to dust. • Require <u>National Institute for Occupational Safety and Health (NIOSH)-approved-half-face respirators</u> equipped with N-100 or P-100 filters to be used during <u>digging any worker collocation with surface disturbance activities</u> if determined to be <u>warranted after conducting a needed based upon the applicable job hazard analysis</u>. <u>Require employees to wear respirators when working near earth-moving machinery if determined to be warranted after conducting a job hazard analysis.</u> • Cause employees to <u>Workers that are required to use respirators as determined by a job hazard analysis shall be medically evaluated, fit-tested, and properly trained on the use of the respirators, and implement a full respiratory protection program shall be implemented</u> in accordance with the applicable Cal/OSHA Respiratory Protection Standard (8 CCR 5144). • Provide separate, clean eating areas with hand-washing facilities. • Thoroughly clean construction tools, equipment, and vehicles with water before they are moved offsite to other work locations. • Wheel-washing facilities with water recycling systems shall be provided at all site egress points. Vehicles leaving the site on a daily basis shall utilize wheel washing facilities in order to reduce dust migration off the project site. <u>Equipment inspection and washing stations shall be established and manned at each construction equipment access/egress point. Spot examination of construction equipment for water washing via portable equipment in accordance with SWPPP BMPs shall be performed in order to prevent track-out of transport of material potentially carrying the <i>Coccidioides</i> spore.</u> • <u>Suitable coveralls and change facilities shall be made available to all on-site workers. On-site workers Workers performin work in areas where fresh ground disturbance presents a risk of exposure to the <i>Coccidioides</i> spore shall be required to change clothes after work every day before leaving the work site, to prevent distribution of <i>Coccidioides</i> to non-endemic areas, as determined to be needed based upon the applicable job hazard analysis. As an alternative, disposable Tyvek® or equivalent</u> | |



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| Impact | Mitigation Measure | Residual Impact |
|--------|---|-----------------|
| | <p>work suits and work boots for use on-site shall be provided for workers.</p> <ul style="list-style-type: none"> • <u>Establish sub-contract language clearly indicating that all subcontractors are obligated to comply fully with the meaning and intent of Title 8 California Code of Regulations Sections 5141 and 5144, subject to audit and contract enforcement by the applicant.</u> • <u>Establish and execute auditing protocols to ensure subcontractor compliance with all provisions of the VFMP and provide monthly audit summary data, potential deviations noted and corrective actions implemented to the Monterey County Department of Health and County of Monterey RMA-Planning Department.</u> • Work with a medical professional. <u>Each primary employer of contracted workers shall be required by the terms and conditions of their contract for services to retain and consult with an Occupational Medicine Professional, licensed by either the Medical Board of California or the Osteopathic Board of California to develop a protocol to medically evaluate employees who develop symptoms of Valley Fever. Reporting of symptoms of Valley Fever and diagnosed cases of Valley Fever must occur consistent with Cal/OSHA County and State requirements.</u> <p>AQ-6(b) Additional Valley Fever Dust Suppression Measures. <u>If peak daily wind speeds exceed 15 mph or peak daily temperatures exceed 95 degrees Fahrenheit for three consecutive days, additional dust suppression measures (such as additional water or the application of additional soil stabilizer) shall be implemented prior to and immediately following ground disturbing activities. The additional dust suppression shall continue until winds are 10 mph or lower and outdoor air temperatures are below a peak daily temperature of 90 degrees for at least two consecutive days. The additional dust suppression measures shall be incorporated into the Final Construction Management Plan. The Final Construction Management Plan shall be submitted to the County of Monterey RMA-Planning Department for review and approval prior to the issuance of any grading permit commencing ground disturbing activities (e.g., grading, filling, trenching).</u></p> <p>AQ-6(d) Valley Fever Worker Training Program and Safety Measures. <u>Prior to any project grading activity, the primary project construction contractor shall prepare and implement a worker training program that describes potential health hazards associated with Valley Fever, common symptoms, proper safety procedures to minimize health hazards, and notification procedures if suspected work-related symptoms are identified</u></p> | |



**Table ES-1
 Summary of Significant Environmental Impacts,
 Mitigation Measures, and Residual Impacts**

| Impact | Mitigation Measure | Residual Impact |
|--------|---|-----------------|
| | <p>during construction, <u>including the fact that certain ethnic groups and immune-compromised persons are at greater risk of becoming ill with Valley Fever.</u> The objective of the training shall be to ensure the workers are aware of the danger associated with Valley Fever. The worker training program shall be included in the standard in-person training for project workers, and shall identify safety measures to be implemented by construction contractors during construction, including all safety measures included in the Valley Fever Management Plan prepared pursuant to Mitigation Measure AQ-6(a). Prior to initiating any grading, the project applicant shall provide the Monterey County RMA – Planning Department and the County of Monterey Environmental <u>County Health Bureau Department</u> with copies of all educational training material for review and approval. No later than 30 days after any new employee or employees begin work, the project applicant shall submit evidence to the Monterey County RMA – Planning Department that each employee has acknowledged receipt of the training (e.g., sign-in sheets with a statement verifying receipt and understanding of the training).</p> <p>AQ-6(e) Valley Fever Information Handout. The applicant shall work with a medical professional, in consultation with the <u>Monterey County Health Department</u>, to develop an educational handout for on-site workers and surrounding residents within three miles of the project site, and include the following information on Valley Fever: what are the potential sources/ causes, what are the common symptoms, what are the options or remedies available should someone be experiencing these symptoms, and where testing for exposure <u>infection</u> is available. Prior to construction permit issuance, this handout shall have been created by the applicant and reviewed by the County. No less than 30 days prior to any <u>surface disturbance (e.g., grading, filling, trenching)</u> work commencing, this handout shall be mailed to all existing residences within three miles of the project boundaries.</p> | |



**Table ES-1
 Summary of Significant Environmental Impacts,
 Mitigation Measures, and Residual Impacts**

| Impact | Mitigation Measure | Residual Impact |
|---|---|--|
| <p>Impact AQ-7 The proposed project would result in temporary air quality impacts as a result of project decommissioning. The extent of these effects would depend on future conditions in effect at that time, although project decommissioning is anticipated to result in air quality impacts comparable to project construction. Impacts related to decommissioning would be Class I, significant and unavoidable. [Thresholds 2, 3]</p> | <p>Mitigation Measures AQ-2(a), and AQ-2(b), and AQ-2(c) would reduce fugitive dust and exhaust emissions associated with project decommissioning. These mitigation measures, or equivalent measures based on available technology at the time of project decommissioning, would be required during project decommissioning, if proposed.</p> | <p>As described in Impact AQ-2, Mitigation Measures AQ-2(a), and AQ-2(b), and AQ-2(c) would reduce project construction emissions, but emissions would remain significant and unavoidable. Therefore, emissions from decommissioning remain significant and unavoidable.</p> |
| <p>Impact AQ-9 Construction of the proposed project would result in the temporary generation of air pollutants, which would affect local air quality. Short-term emissions of ozone precursors and PM₁₀ during the construction period would exceed SLOAPCD thresholds. Impacts would be Class I, significant and unavoidable. [Threshold 2]</p> | <p>Mitigation Measures AQ-2(a), and AQ-2(b), and AQ-2(c) are required for the proposed project, and are based on SLOAPCD recommendations for mitigating construction emission thresholds of significance. These measures are consistent with standard MBUAPCD and SLOAPCD recommended measures, and would ensure that construction-phase mitigation is uniformly applied across the project. Thus, separate additional mitigation is not required for the portion of the project within SLOAPCD. In addition, SLOAPCD CEQA Air Quality Handbook (April 2012) requires projects that cannot mitigate their construction emissions below the SLOAPCD thresholds of significance with <u>on-site mitigation to develop a Construction Activity Management Plan that includes off-site mitigation to reduce emissions below the applicable threshold. Preparation of a Final Construction Management Plan (CMP) is required by APM-2, described in Section 2.0, Project Description. Therefore, the following mitigation measure is required to minimize construction emissions within the SCCAB:</u></p> <p>AQ-9 Construction Management Plan Requirements. The Final Construction Management Plan (CMP) proposed as Applicant Proposed Measure 2 (APM-2) shall include the following construction emissions reduction measures, recommended by SLOAPCD:</p> <ul style="list-style-type: none"> • <u>Best Available Control Technology for Construction equipment (BACT) measures to reduce construction emissions, which can include:</u> <ul style="list-style-type: none"> ○ <u>Repowering equipment with the cleanest engines available;</u> ○ <u>Installing California Verified Diesel Emission Control Strategies.</u> These strategies are listed at: | <p>Even w With implementation of these mitigation measures <u>AQ-2(a), AQ-2(b), AQ-2(c), and AQ-9,</u> temporary emissions <u>within the SCCAB during construction would be reduced to the maximum extent feasible, but would continue to</u> exceed ambient air quality standards within the SCCAB. Therefore, the impact would be significant and unavoidable.</p> |



**Table ES-1
 Summary of Significant Environmental Impacts,
 Mitigation Measures, and Residual Impacts**

| Impact | Mitigation Measure | Residual Impact |
|--|---|---|
| | <p align="center">http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm</p> <ul style="list-style-type: none"> • <u>Schedule activities to minimize the amount of large construction equipment operating simultaneously during any given time period; and</u> • <u>Scheduling of construction truck trips during non-peak hours to reduce peak hour emissions;</u> <p><u>The CMP shall be submitted to the County of Monterey RMA-Planning Department for review and approval.</u></p> | |
| <p>Impact CR-1 Construction and decommissioning of the proposed project would involve surface excavation, which has the potential to unearth or adversely impact identified NRHP/CRHR-eligible prehistoric or historic archaeological resources. Impacts would be Class II, <i>significant but mitigable</i>. [Threshold 1]</p> | <p>CR-1(a) Archaeological Site Avoidance. Wherever feasible, direct impacts on NRHP/CRHR-eligible archaeological sites shall be avoided. Avoidance shall be accomplished by preventing any direct ground disturbance of the resource. <u>If impacts to all or any of these resources cannot be avoided, as determined by the applicant with concurrence from RMA – Planning, the boundaries of the NRHP/CRHR-eligible sites shall be marked in the field by a Registered Professional Archaeologist prior to ground disturbance with exclusionary fencing, lath, flagging tape, or some other combination of material that is highly visible, durable, and which construction and management personnel can recognize as marking an exclusion zone where no earth disturbance or other activity shall occur. If avoidance of any direct disturbance is deemed feasible by RMA – Planning based on the sensitivity of the resource relative to the severity of impact, the boundaries of the NRHP/CRHR-eligible sites shall be marked in the field by a Registered Professional Archaeologist prior to ground disturbance with exclusionary fencing, lath, flagging tape, or some other combination of material that is highly visible, durable, and which construction and management personnel can recognize as marking an exclusion zone where no earth disturbance or other activity shall occur.</u> Exclusion zones shall be inspected weekly by an archaeological monitor or other environmental inspector to ensure that they are being honored, remain effective, and in place. If complete avoidance is not feasible, mitigation measures CR-1(b) and CR-1(c) shall apply.</p> | <p>Implementation of mitigation measures CR-1(a) through CR-1(f) would reduce impacts to historic and archaeological cultural resources to a less than significant level.</p> |
| <p>Impact GEO-2 The solar development generating facility area is relatively flat and is subject to low levels of landslide potential. However, the utility corridor contains steeper slopes that may be subject to moderate landslide potential. In addition, the project site contains several deeply incised channels that</p> | <p>GEO-2 Landslide Avoidance and Hazard Minimization.</p> | <p>Impacts would be less than significant after mitigation.</p> |



**Table ES-1
 Summary of Significant Environmental Impacts,
 Mitigation Measures, and Residual Impacts**

| Impact | Mitigation Measure | Residual Impact |
|---|--|--|
| <p>are subject to moderate landslide potential. Landsliding has the potential to damage and destroy roadways, structures and other improvements as well as alter or block drainage channels, causing further damage and erosion. This is a Class II, <i>significant but mitigable</i>, impact. [Threshold 1]</p> | | |
| <p>Impact GEO-3 Project construction, operation, and decommissioning could result in soil erosion or loss of topsoil. However, compliance with the NPDES <u>construction stormwater</u> program and implementation of measures promoting infiltration, as identified in a final, design-level drainage analysis, would minimize erosion. Impacts would be Class III, <i>less than significant</i>. [Threshold 2]</p> | <p>Compliance with Monterey County requirements for erosion control and grading would partially reduce impacts. In addition, compliance with recommendations in a required final, design-level drainage analysis, and compliance with the project's <u>construction SWPPP</u>, as described in Section 4.9, <i>Hydrology and Water Quality</i>, <u>as well as proposed project design features (i.e., APMs)</u>, would reduce erosion impacts to a less than significant level. No mitigation is required.</p> | <p>Impacts would be less than significant without mitigation.</p> |
| <p>Impact HAZ-5 Repowering or decommissioning of the proposed project could result in the improper disposal of hazardous waste, including used PV solar modules. Impacts related to the disposal of decommissioned PV solar modules would be Class II, <i>significant but mitigable</i>. [Thresholds 1, 2]</p> | <p>HAZ-5 Disposal of PV Modules and Support Structures. The applicant shall submit a recycling or disposal plan for PV modules and support structures for County review and approval, in order that project structures not pose a risk to human health or the environment after project repowering and/or decommissioning. The plan shall specify how these project components shall be <u>recycled or</u> disposed of in a manner that will not pose a risk to human health or the environment, and the costs of such <u>recycling or disposal</u>. Prior to grading or building permit issuance <u>operation</u>, the applicant shall post a long-term <u>decommissioning</u> bond to the County of Monterey, or other mutually acceptable financial obligation, in an amount consistent with these costs (plus County administrative costs) <u>consistent with the requirements of the Development Agreement (if approved)</u>, and which may also include any other project decommissioning obligations.</p> | <p>Implementation of the above mitigation measure would reduce impacts related to disposal of PV modules and support structures during decommissioning and/or repowering to a less than significant level.</p> |
| <p>Impact HYD-2 Construction or operation of the project could potentially result in the accidental release of hazardous materials that could degrade water quality. Impacts would be Class II, <i>significant but mitigable</i>. [Thresholds 1, 6]</p> | <p>HYD-2(a) Accidental Spill Control and Environmental Training. Prior to the issuance of any grading and/or building permit, the project proponent shall submit a Spill Response Plan and Spill Prevention, Control and Countermeasure Plan to the County of Monterey for review and approval,... The Spill Response Plan (SRP) in combination with the Spill Prevention, Control and Countermeasure (SPCC) Plan to be prepared for the proposed project shall include procedures for quick and safe clean-up of accidental spills.</p> | <p>With implementation of the identified mitigation measures, impacts would be reduced to a less than significant level.</p> |



**Table ES-1
Summary of Significant Environmental Impacts,
Mitigation Measures, and Residual Impacts**

| Impact | Mitigation Measure | Residual Impact |
|---|--|--|
| | <p>The SRP and/or SPCC shall prescribe hazardous materials handling procedures for reducing the potential for a spill during construction, and shall include an emergency response program to ensure quick and safe clean-up of accidental spills. Additionally, an environmental training program shall be established to communicate environmental concerns and appropriate work practices, including spill prevention and response measures to all field personnel. A monitoring program shall be implemented to ensure that the plans are followed during all construction, operations, and maintenance activities. <u>The Hazardous Materials Response Plan (HMRP) proposed as part of the project [applicant proposed measure (APM) 6] shall incorporate all of the elements of this mitigation measure. The County of Monterey shall be responsible for reviewing the applicant's proposed HMRP to confirm that it incorporates the requirements of this mitigation measure.</u></p> | |
| <p>Impact HYD-4 The proposed project could alter the existing drainage pattern of the project area, and would introduce impervious surfaces into an area that is currently undeveloped. The project may therefore increase runoff, potentially resulting in flooding or increased erosion downstream. Impacts would be Class III, <i>less than significant</i>. [Thresholds 3, 4, 5]</p> | <p>The final design of the project would be required to be developed in accordance with a final, design-level, drainage analysis which would include a detailed evaluation of the potential drainage impacts associated with the project, including identification of measures to reduce runoff by promoting infiltration. As noted in the <i>Preliminary Drainage Report</i> (RBF, 2013), measures to reduce runoff by promoting infiltration would be selected and configured as part of this final design considering local impacts from proposed improvements, detailed grading plans and maintenance requirements. In addition, the proposed project would be required to comply with the NPDES program, including through preparation of a SWPPP and implementation of associated BMPs, as outlined in Impact HYD 1. Compliance with recommendations in the design-level drainage analysis and existing regulations would reduce impacts related to increased erosion downstream to a less than significant level. No mitigation would be <u>is</u> required.</p> | <p>Impacts would be less than significant.</p> |
| <p>Impact HYD-5 The project site contains numerous drainage channels, some of which contain flow depths and velocities that could expose proposed structures to potential flooding hazards. Impacts would be Class III, <i>less than significant</i>. [Threshold 9]</p> | <p>The applicant would be required to prepare a design-level drainage analysis that would ensure both that proposed facilities avoid higher flow rates, and that any improvements within 50 feet from the top of bank of on-site drainages would comply with the requirements of Chapter 16.16 of the Monterey County Code. Compliance with the recommendations contained in the design-level analysis would ensure that impacts are less than significant. No mitigation is required.</p> | <p>Impacts would be less than significant.</p> |



**Table ES-1
 Summary of Significant Environmental Impacts,
 Mitigation Measures, and Residual Impacts**

| Impact | Mitigation Measure | Residual Impact |
|---|---|---|
| <p>Impact PS-1 The proposed project would substantially increase activity temporarily during construction and incrementally increase demand during operation at a site located in a relatively undeveloped area of the County. Emergency access for fire or emergency medical services may be insufficient and estimated response times would exceed acceptable limits included in the General Plan Public Services Element. Impacts would be Class II, <i>significant but mitigable</i>. [Threshold 1(i)]</p> | <p>PS-1(a) Construction Management Plan. The applicant shall include measures that reduce the demand for fire protection services during project construction in the final Construction Management Plan subject to the review and approval of Cal Fire<u>CAL FIRE</u> or the Fire Protection District as applicable. Applicable measures shall include but not be limited to on-site fire suppression, including on-site fire suppression equipment and fire suppression training for on-site personnel. The construction contractor shall be responsible for implementing the final Construction Management Plan, including applicable fire safety measures, for the duration of construction. Prior to the issuance of a construction permit, the applicant shall provide the County with a copy of the final Construction Management Plan approved by Cal Fire<u>CAL FIRE</u> that includes measures that adequately reduce the demand for fire protection services.</p> <p>PS-1(b) Emergency Response Training. During project construction and operation, on-site staff shall receive emergency response training and shall be informed of all emergency response procedures on a minimum annual basis. <u>Prior to operation of the project, the applicant shall consult with South Monterey County FPD/CAL FIRE staff to educate them in emergency response procedures for solar power facilities.</u> In addition, on-site fire suppression equipment (e.g. fire extinguishers) shall be maintained on-site for the duration of project operation.</p> <p>PS-1(c) Fire Protection during Construction. Prior to the issuance of a construction permit, the applicant shall enter into an agreement with Cal Fire<u>CAL FIRE</u> to provide sufficient fire protection services during the non-peak fire season for the duration of project construction via provision of sufficient funding and other measures necessary to keep the Cal Fire<u>CAL FIRE</u> Parkfield substation operational during the non-peak fire season. The measures to assure sufficient fire protection services in accordance with existing standards shall be subject to the review and approval of Cal Fire<u>CAL FIRE</u> and may include but not be limited to the following: funding for provision for fire personnel, increasing engine availability in the area <u>purchase of an additional patrol/rescue vehicle</u>, and/or provision of a helicopter landing space in consultation with Cal Fire<u>CAL FIRE</u>, the use of which will be restricted to emergency use only. A copy of the final, executed agreement shall be submitted to the County prior to the issuance of a construction permit.</p> | <p>Compliance with existing County ordinances and implementation of mitigation measures PS-1(a) through PS-1(c) would reduce potential impacts relating to emergency access and provision of emergency services. As noted above, year round staffing at the local Cal Fire station during the construction phase would address response times to the site. Impacts would therefore be less than significant.</p> |



**Table ES-1
 Summary of Significant Environmental Impacts,
 Mitigation Measures, and Residual Impacts**

| Impact | Mitigation Measure | Residual Impact |
|--|--|---|
| <p>Impact T-7 An employee shuttle service would provide transport to and from the site during the construction phase. The exact location, and size, <u>and design</u> of the proposed park and ride facilities are not known at this time; therefore, there is the potential for secondary impacts to the environment to occur. Impacts would be Class II, <i>significant but mitigable</i>. [Threshold: multiple]</p> | <p>T-7 Park and Ride Facility Siting.</p> | <p>With implementation of the above mitigation measure, impacts would be less than significant.</p> |



Section 2.0 Project Description

Figures 2-2a (formerly Figure 2-2) and 2-2b (new figure); revisions shown on following pages.

Second paragraph under Section 2.4 (Project Location):

...In addition, implementation of the proposed solar project would require construction and operation of an approximately 155-acre utility corridor and improvements to an existing private access road within an approximately 60-acre area. The various project boundaries are shown in Figure 2-2b, and tThese proposed project features are described in more detail under Section 2.5, Project Characteristics.

Third paragraph of the *Solar Modules, Collection Systems, and Inverters* discussion in Section 2.5.1 (Energy-Related Infrastructure):

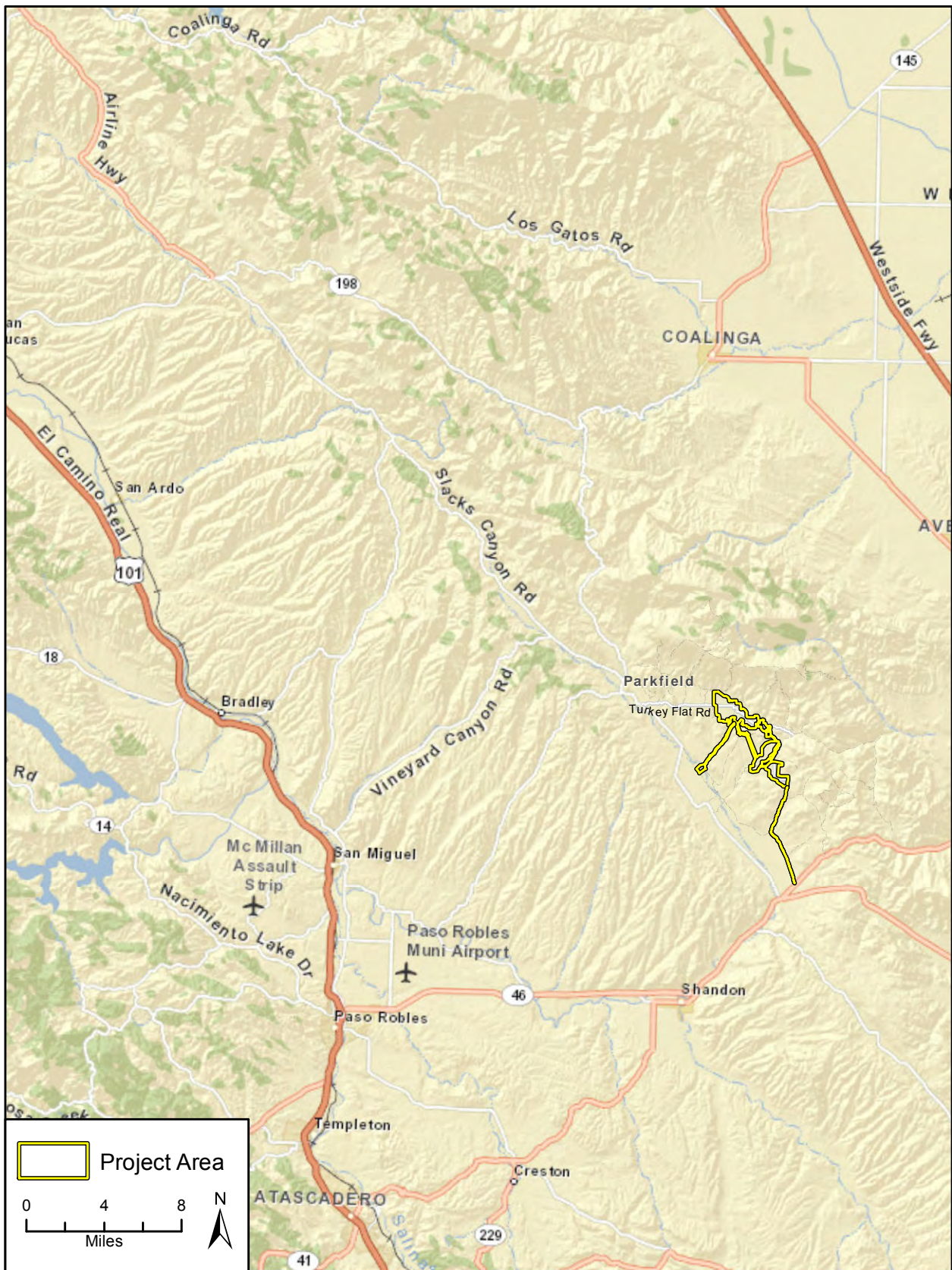
...With a fixed-tilt system, the modules would be fixed at an angle between 20 to 25 degrees to the south and would not move. Fixed-tilt modules would be up to ~~ten~~ 13 feet off the ground surface at the highest point of the array depending on the terrain...

Seventh paragraph of the *Solar Modules, Collection Systems, and Inverters* discussion in Section 2.5.1 (Energy-Related Infrastructure):

A high-capacity 34.5 Kv collection system line would collect power in the northern and southern areas of the project site...The southern portions of the project site would also be linked by a high-capacity 34.5 Kv collection system line corridor...

Second paragraph of the *On-Site Substations* discussion in Section 2.5.1 (Energy-Related Infrastructure):

The substations areas would be improved with compacted materials and concrete pads to support electrical equipment and supporting infrastructure. The substations structures would range in height from approximately 20 to ~~90~~ 130 feet, as shown in Figure 2-7a~~b~~...



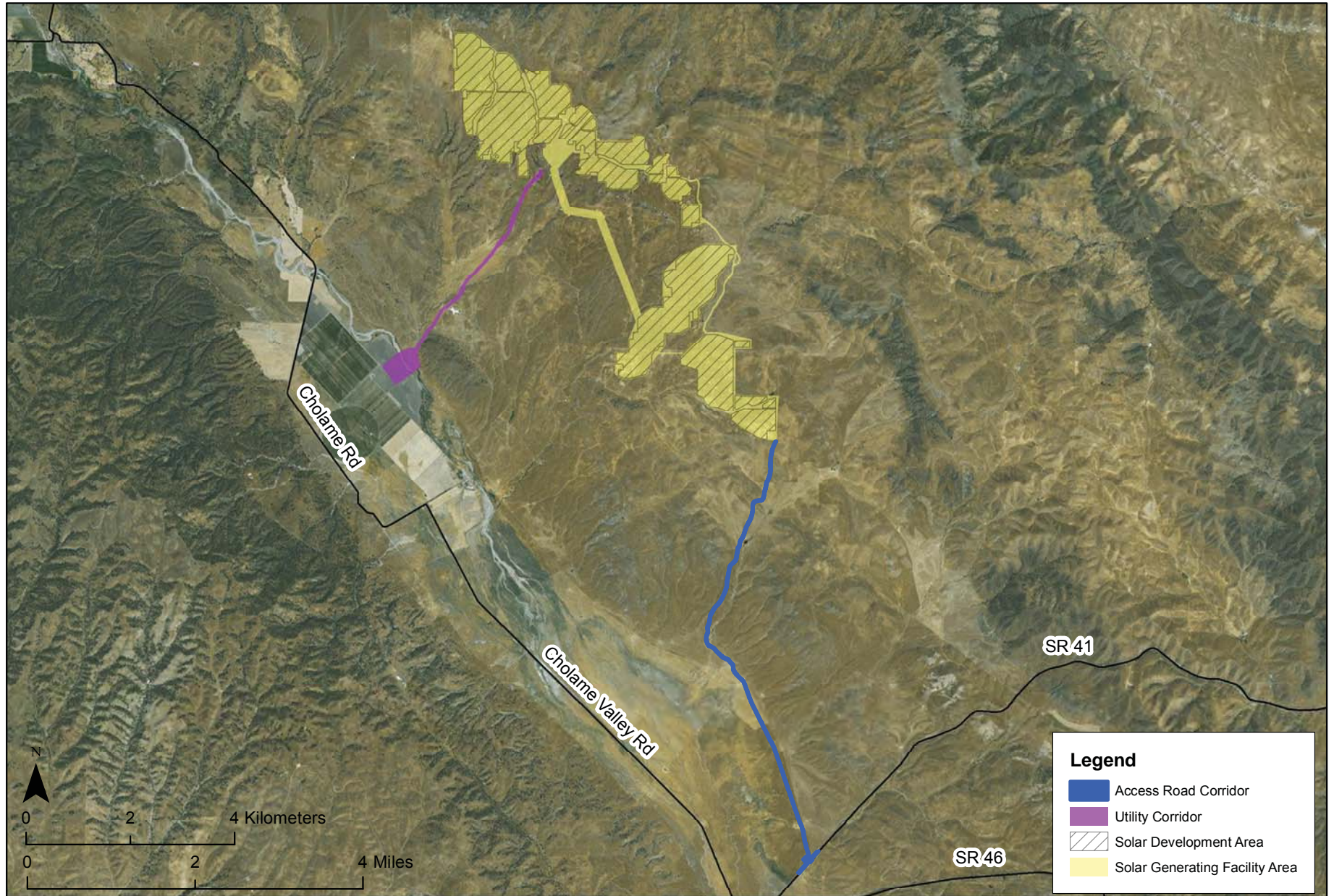
Imagery provided by ESRI and its licensors © 2014.

Vicinity Map

Figure 2-2a

County of Monterey





Project Boundaries

Source: Denise Duffy and Associates, 2014.

Figure 2-2b
County of Monterey



Second paragraph of the *On-Site Substations* discussion in Section 2.5.1:

The substations areas would be improved with compacted materials and concrete pads to support electrical equipment and supporting infrastructure. The substations structures would range in height from approximately 20 to ~~90~~ 130 feet, as shown in Figure 2-7a**b**. Security fencing consisting of six to eight foot chain link fencing with barbwire would be installed around the perimeter of the new substations. Approximately ~~three to five~~ to seven steel monopole structures or lattice structures would be constructed between the northern substation and the PG&E Switching Station (described below) to tie the project into the PG&E system. These poles would be approximately ~~130~~ 140 to 150 feet in height.

PG&E Switching Station discussion in Section 2.5.1:

PG&E Switching Station. Near the location of the proposed northern substation, the project proponent would also construct a new 230kV interconnection switching station that would provide an interconnection to the existing Morro Bay-Gates 230kV transmission line and would be owned and operated by PG&E. The PG&E-owned switching station would include an approximately six to eight foot chain link fence with barbwire for security, electrical equipment and control building, and ~~two to four~~ five to seven transmission structures approximately ~~130~~ 140 to 150 feet in height to reroute the existing 230 kV transmission line into the new switching station. The disturbance area of the switching station would be approximately 6 acres. The switching station area would be improved with compacted materials and concrete pads to support electrical equipment and supporting infrastructure. The approximately Three to five to seven steel monopole structures or lattice structures that would be constructed between the northern substation and the switching station would be approximately ~~130~~ 140 to 150 feet in height, ~~as shown in Figure 2-7b~~. PG&E would be responsible for inspecting and maintaining the switching station.

The PG&E switching station would include separate communication facilities to connect the switching station to PG&E's Gates substation located in Fresno County, approximately 23 miles from the switching station. Two different types of communication (microwave and fiber) are preferred for redundancy. A microwave site approximately 125 feet by 125 feet would be constructed within the switching station footprint which would include a communications building and microwave tower approximately 75 - 130 feet high. A relay station would be constructed within an existing disturbed area to provide microwave relay to the Gates substation. In addition, the project applicant would construct two trenched fiber line conduits approximately 200 feet of underground fiber would be constructed from the switching station to a Morro Bay-Gates 230kV transmission line tower to connect to the optical ground wire on that transmission line tower to provide a communication path to the Gates substation. PG&E would construct a switching station fiber tap and a fiber tap located on the Morro Bay-Gates 230 kV line. When reconfiguring the PG&E Morro Bay-Gates 230 kV line, PG&E also would need to install a temporary shoo-fly line to support the Templeton Gates 230 kV circuit. This shoo-fly would require approximately ten wood poles, which would be

removed upon securing the interconnection to the switching station (typically 3-6 months).

Access Road Improvements discussion in Section 2.5.2 (Other Structures and Improvements) in Section 2.0, *Project Description*:

...These improvements would include: widening the access road from 15 to up to 30 feet, resurfacing with aggregate material...

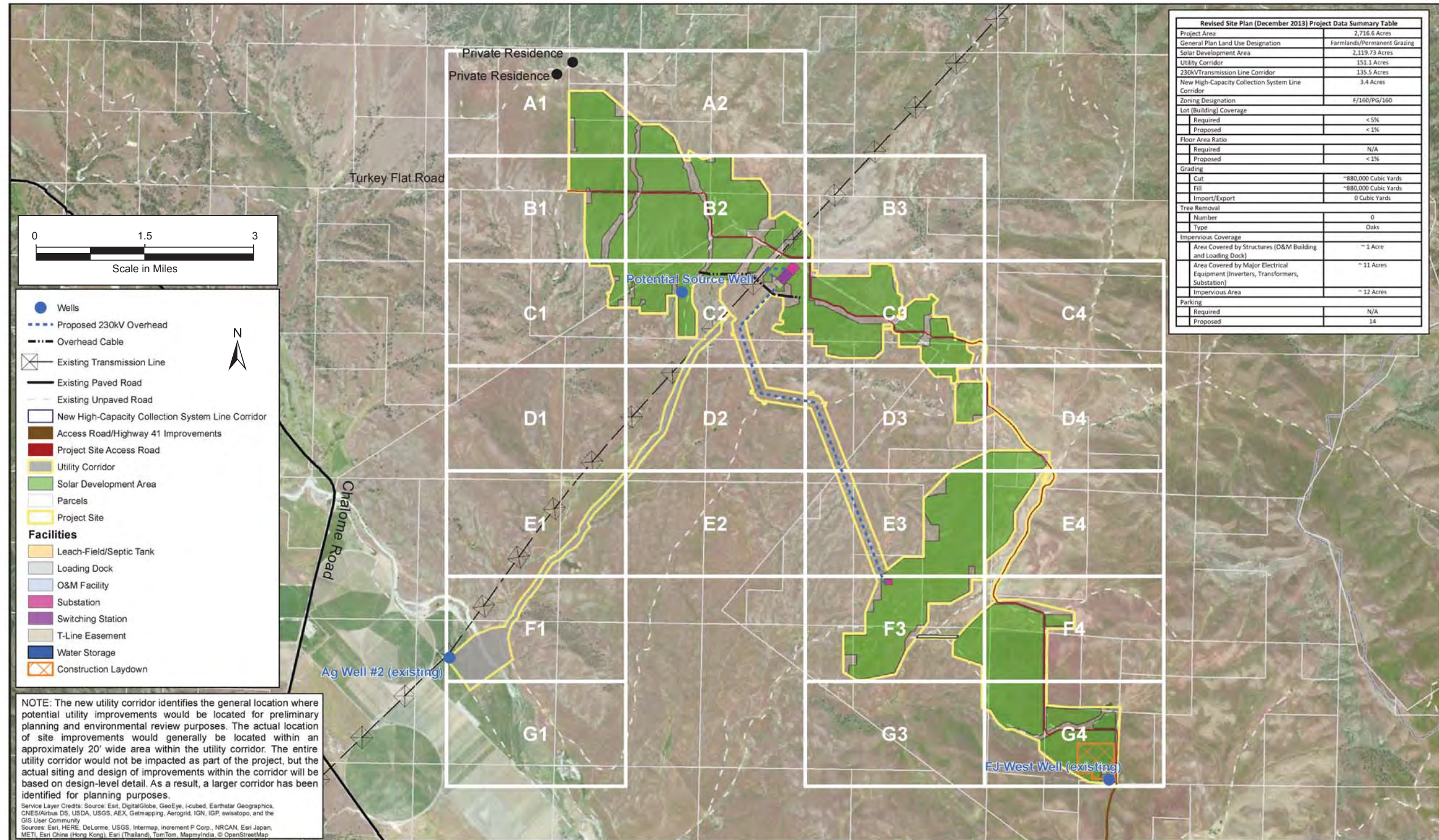
Figure 2-4a, Figure 2-4e, and Figure 2-4h; revisions shown on the following pages.

Last paragraph of the *Internal Roadways* discussion in Section 2.5.2 (Other Structures and Improvements):

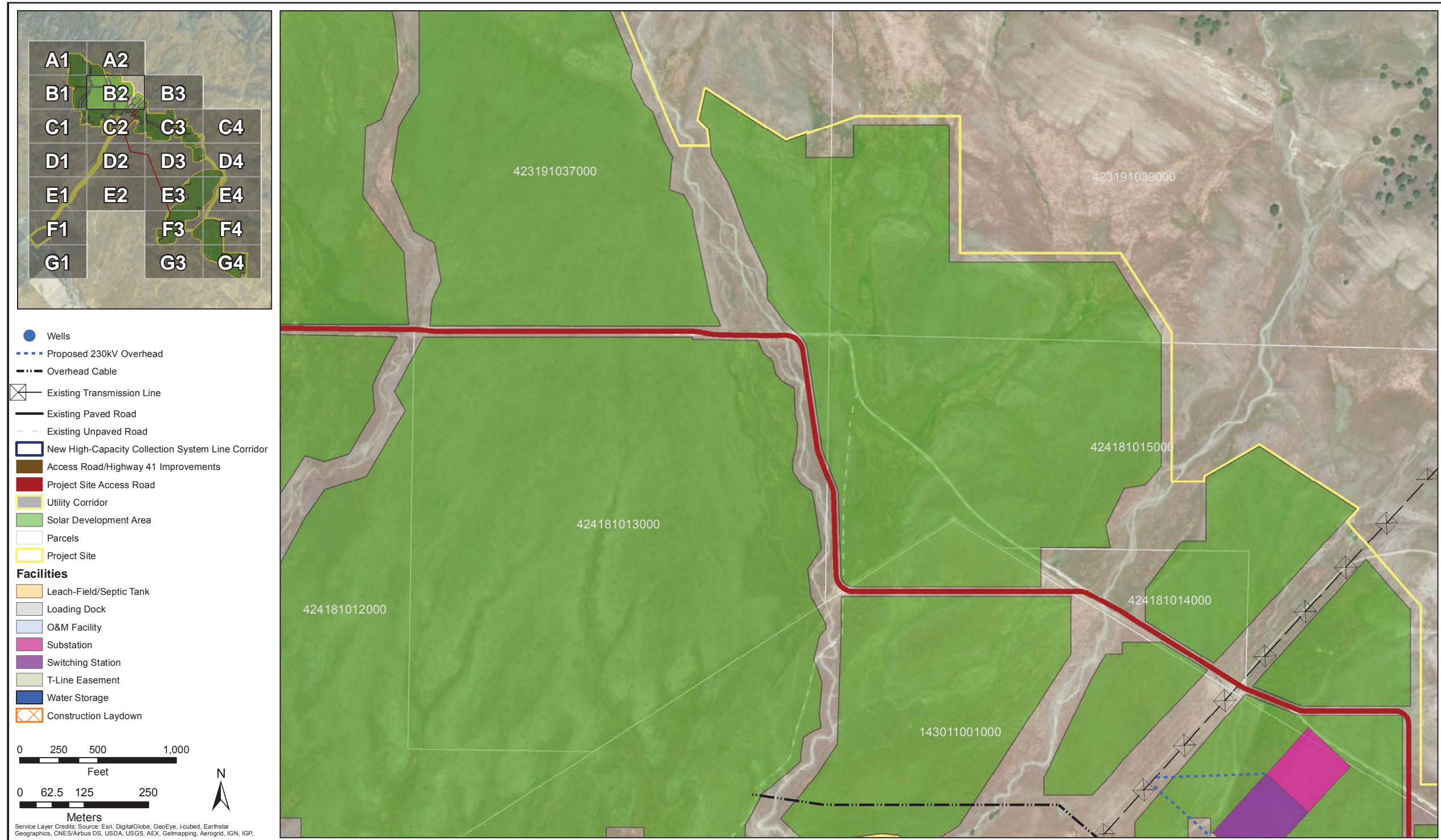
Best Management Practices (BMPs) for construction and maintenance of roads would be implemented, ~~as well as the Applicant Proposed Measures (APMs) described in Section 2.6.5,~~ as well as the Applicant Proposed Measures (APMs) described in Section 2.9.

Second paragraph of Section 2.6.2 (Access and Traffic):

The applicant has proposed a number of construction traffic minimization measures, including the use of a shuttle service to and from the site (see Section 2.10 for more information regarding applicable APMs). This shuttle service would transport approximately 95% of the anticipated construction work force (not including visitors, management, monitors/inspectors, etc.) on a daily basis from designated employee shuttle park-and-ride locations. Use of the shuttle program would be mandated as a condition of employment. Shuttle park-and-ride lots ~~would~~ are anticipated to be located west of the site on SR 46 in Paso Robles, (Cuesta College North County Campus), northwest of the site on Highway 101 in King City (Wild Horse Café), and southeast of the project site near the intersection of SR 46 and SR 33 (Blackwell's Corner). The ultimate locations of the proposed park-n-ride facilities would be determined based on their proximity to SR 46 and SR 41, their ability to achieve the goal of 95% ridership, and their prior use for parking, including prior use for construction staging for other solar developments located in San Luis Obispo County. In addition, the locations of park-and-ride facilities would consist of previously disturbed and/or developed areas (paved or unpaved) that have historically been used for parking purposes. No new or expanded parking facilities would be constructed for the proposed project, although These sites may require temporary fencing and minor surface improvements may be constructed. Each shuttle bus would have a capacity of approximately 46 passengers.

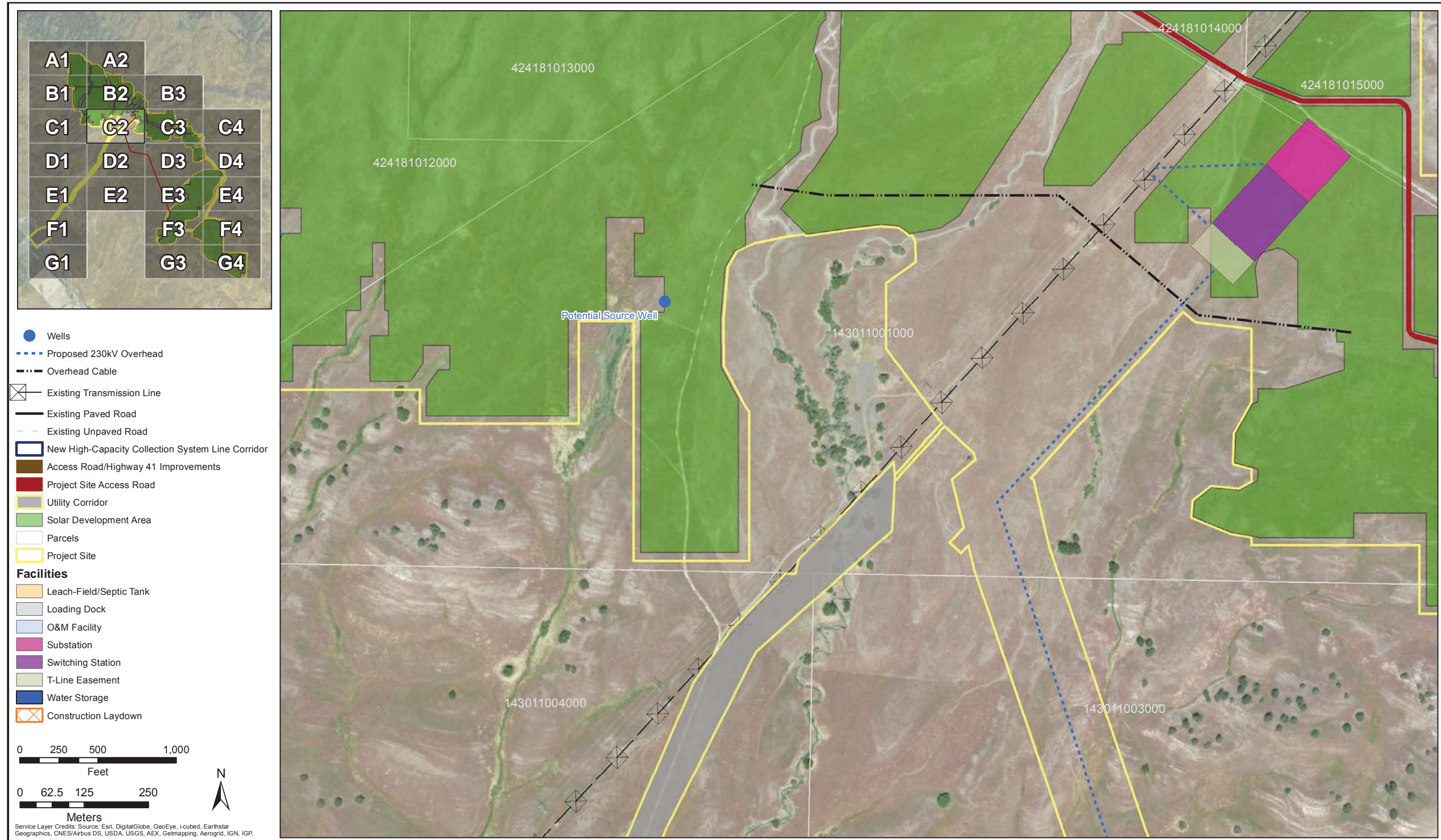


Site Plan: Index
 Figure 2-4a
 County of Monterey



Site Plan: Sheet B2

Figure 2-4e



Site Plan: Sheet C2
 Figure 2-4h
 County of Monterey

Sixth paragraph of Section 2.8 (Decommissioning and Site Restoration/Revegetation):

...Overhead electrical collection lines, poles and associated components would be disassembled and removed, and reprocessed, sold, salvaged or otherwise disposed of in an appropriate manner. PG&E facilities constructed in association with the proposed project would not be decommissioned, but rather would remain associated with the Morro Bay-Gates 230 kV line.

Table 2-4:

**Table 2-4
 Applicant Proposed Measures**

| APM Number | Proposed Measure |
|----------------------|--|
| <u>APM-10</u> | <p>The project proponent will prepare a Bird and Bat Conservation Strategy (BBCS) to identify <u>conservation measures to minimize avian impacts, describe the avian use of the site, and describe a post-construction avian mortality monitoring program. This Avian Mortality Monitoring Program (AMMP) will monitor operational effects of the project on avian species. The AMMP will include the following elements:</u></p> <ul style="list-style-type: none"> • <u>Surveys of the solar arrays for bird mortality during the initial operations and maintenance phase;</u> • <u>Protocols for data collection, documentation, and reporting to the County;</u> • <u>Protocols to assess searcher efficiency and carcass removal; and</u> • <u>Minimum credentials of monitoring personnel and/or appropriate training.</u> |
| <u>APM-11</u> | <p>The applicant shall prepare a design level drainage analysis that will ensure that project facilities are not placed in areas where they would be subject to <u>significant flood or erosion hazards or affect the existing capacity of affected watercourses. The design level drainage study will incorporate the following flood-risk and erosion avoidance measures contained in the Preliminary Drainage Report (RBF 2013) and in the Preliminary Drainage Analysis Addendum (Wallace Group 2014):</u></p> <ul style="list-style-type: none"> • <u>No modules shall be placed in areas where the product of the flow depth and flow velocity is greater than 9 square feet per second (corresponding to a hazard level 3, as defined in the Preliminary Drainage Report) during a 100-year, 24-hour storm event;</u> • <u>No transformers, substations, or inverters shall be placed in areas where the flow depth exceeds 2 feet (corresponding to a hazard level 3, as defined in the Preliminary Drainage Report) during a 100-year, 24-hour storm event;</u> • <u>Transformers, substations, or inverters constructed in areas where any inundation is expected to occur should be placed a minimum of 1 foot above the 100- year water surface elevation;</u> • <u>Solar modules constructed in areas where any inundation is expected to occur should be placed a minimum of 6-inches above the 100- year water surface elevation; and</u> • <u>Tracker actuator motors constructed in areas where any inundation is expected to occur should be placed a minimum of 6-inches above the 100- year water surface elevation.</u> <p><u>In addition, the design level drainage analysis shall contain measures to ensure that any project-related improvements within 50 feet from the top of bank of on-site drainages will not result in significant erosion related hazards and that these improvements will not affect the existing capacity of the affected watercourse, as required by Chapter 16.16 of the Monterey County Code. Prior to the issuance of grading permits, the applicant shall submit the design-level drainage analysis to the Monterey County Water Resources Agency for review and approval.</u></p> |



Section 4.1 Aesthetics

First paragraph of Section 4.1.2(c) (Proposed Project Viewshed):

...The proposed project site is not visible from any roadways, with the exception of one location on Turkey Flat Road where the public road terminates into the project site. The proposed utility corridor area is also within the viewshed of and Cholame Valley Road, which, due to the surrounding topography, generally have very limited views of the site, despite its size; however, due to the distance of the utility corridor from this roadway and intervening topography, it is unlikely that this project component would be visible from this roadway.

Fifth paragraph of Section 4.1.3(a) (Methodology and Significance Thresholds):

As stated in Section 2.0, *Project Description*, project decommissioning, which would occur in 30 years or more, could potentially result in other environmental effects, depending on site-specific environmental conditions and the specific actions that would occur as part of decommissioning. The County may conduct additional CEQA review to ensure compliance with future aesthetic requirements during decommissioning. As described in Section 2.0, *Project Description*, the project includes APM-1 to ensure that all potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.

First paragraph under Impact AES-1:

As noted in Section 4.1.2(c) (Proposed Project Viewshed), the project site is visible from Turkey Flat Road, ~~Cholame Valley Road,~~ and SR 41. The proposed utility corridor area is also within the viewshed of Cholame Valley Road; however, due to the distance of the utility corridor from this roadway and intervening topography, it is unlikely that this project component would be visible from this roadway.

Third paragraph of Impact AES-2:

...Visible improvements would include: widening the access road up to 30 feet in all locations, resurfacing with aggregate material, widening the existing culverts to accommodate the 30-foot width of the access road, and creating turnouts to accommodate emergency vehicle access...

Fourth paragraph of the *KOP Analysis* discussion in Impact AES-2:

KOP 4 represents a location from which the proposed utility corridor infrastructure could be ~~some~~ what visible from a public viewing location, although given the distance between the viewing location and proposed improvements it is unlikely that infrastructure improvements would be visible from this location. Figure 4.1-5 depicts pre- and post-project conditions as viewed from KOP 4. The proposed three-mile utility corridor is not included in the post-project visual simulation. The proposed utility



corridor would generally be located to the southeast of the existing 230 kV Morro Bay Gates overhead transmission line. Because of the current visibility of the transmission line, this area is not a pristine view. The proposed overhead utilities in this corridor would be located along a similar path as the existing Morro Bay Gates infrastructure. Therefore, the proposed utility corridor would not substantially degrade this viewshed and would be generally consistent with the existing visual character of the area. Accordingly, and the visual impacts related to the proposed utility corridor are less than significant.

Second paragraph under Impact AES-3:

Temporary construction lighting would be limited to the 38-acre construction laydown area, an approximately 4 acre- temporary construction and material staging area northwest of SR 41, a 0.5-acre temporary construction staging area south of SR 41, and the project entrance. Additional temporary nighttime lighting may be needed, on an as-needed basis, elsewhere on the site depending on the nature of construction-related activities. This lighting would be used on an as needed basis to accommodate nighttime deliveries and/or for security purposes.

Section 4.2 Agricultural Resources

Page 4.2-5:

Monterey County Zoning Ordinance – Title 21. According to Title 21 of the Monterey County Code, the project site, including the utility corridor and the northern half of the existing private access road, are zoned Permanent Grazing/160 (PG/160 and Farmland/160 (F/160). The southern half of the access road, within San Luis Obispo County, is designated Agriculture. Chapter 21.34 (Regulations for Permanent Grazing Zoning Districts or “PG” Districts) of the Monterey County Code is intended to preserve, protect, and enhance those productive exclusive grazing lands in the County of Monterey. Projects considered “public and quasi-public uses, including public utilities,” may be developed with a use permit under the site’s existing zoning [Monterey County Zoning Ordinance §21.30.050(b) and §21.34.050(d)].

Section 4.2.3(a) (Methodology and Significance Thresholds):

...this EIR evaluates decommissioning based on current standard decommissioning practices, which include dismantling and repurposing, salvaging/recycling, or disposing of the solar energy improvements, and site restoration. As described in Section 2.0, Project Description, the project includes APM-1 to ensure that all potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time. The County may conduct additional CEQA review to ensure adequate protection of agricultural resources during decommissioning.



Second paragraph of Impact AG-1:

Development activities associated with the proposed project that could affect “Prime Farmland” or “Unique Farmland” would be limited to the installation of temporary water infrastructure (including pumping facilities and ~~an above-ground~~ water pipeline, portions of which would be above and below ground) associated with transporting water from existing Ag Well #2 (as shown in Figure 2-4s in Section 2.0, *Project Description*) to the project site.

Last paragraph of Impact AG-3:

The proposed project contains design features (i.e., applicant proposed measures or APMs) intended to minimize the potential temporary impacts associated with project construction and thereby limit potential secondary effects to adjacent agricultural uses. Applicable measures include the implementation of Best Management Practices (BMPs) during project construction, including providing ongoing coordination with the adjacent property owners concerning construction activities (APM-2), installing mud shakers and/or rumble strips to limit the transport of invasive species (APM-3), implementing applicable SWPPP and erosion control measures (APM-7), implementing a dust control plan to minimize fugitive dust emissions (APM-4), developing a hazardous materials response plan (APM-6), and implementing a post-construction restoration and revegetation plan (APM-5). These measures would minimize the extent of potential indirect impacts to adjacent agricultural uses.

Mitigation measures discussion under Impact AG-3:

Mitigation Measures. No mitigation measures are required. Although the impact would be less than significant without mitigation, the implementation of proposed APMs, as well as measures AQ-2a (Dust Control measures), BIO-2(b) and BIO-2(c), and HYD-2a through HYD-2c would further minimize impacts related to fugitive dust, invasive weeds, and accidental releases of contaminants that could degrade water quality.

Section 4.3 Air Quality

Table 4.3-1:

**Table 4.3-1
 Impact and Mitigation Summary: Air Quality**

| Impact | Mitigation Measures | Residual Impact |
|---|---|--|
| <p>Impact AQ-2 Construction of the proposed project would result in the temporary generation of air pollutants, which would affect local air quality. Short-term emissions of NOX and PM10 during the construction period would exceed MBUAPCD</p> | <p>AQ-2(a) Dust Control Measures. The project applicant and/or contractor shall be responsible for implementing the following mitigation measures throughout the duration of construction. Prior to the issuance of any grading permit, the project applicant and/or contractor shall submit construction drawings to the Monterey County RMA – Planning Department and RMA – Building Services for review and approval that include the</p> | <p>Air emissions calculations were performed for both before and after the incorporation of the above-identified mitigation measures. The mitigation measures include those typically required by CARB and the MBUAPCD</p> |



**Table 4.3-1
Impact and Mitigation Summary: Air Quality**

| Impact | Mitigation Measures | Residual Impact |
|---|--|---|
| <p>thresholds. Impacts would be Class I, significant and unavoidable. [Threshold 2]</p> | <p>following measures on all plans and specifications:</p> <ul style="list-style-type: none"> • The grading plan design shall minimize the amount of disturbed area to the extent feasible; • Water trucks or sprinkler systems shall be used in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency shall be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water shall be used whenever possible; • In order to avoid long distances and associated travel time between source wells and the work area, the project applicant shall employ the use of on-site temporary pipelines, stand tanks or <u>other measures to reduce water truck travel on unstable, disturbed surfaces to move water to the current work area and thereby reduce fill times for water trucks</u>; • To best address fugitive dust proximal to workers, the project applicant shall establish clear boundaries for the assignment of dust control as between the principal EPC contractor and subcontractors. The subcontractors shall be required to maintain dust control in their work area. Maps showing each contractor's area of responsibility for dust control shall be distributed as work areas change. These maps shall be given to each water truck driver in an effort to reduce duplication of efforts while assuring full coverage. Water trucks will be assigned to specific crews or areas. In addition, each water truck driver shall be equipped with a radio to respond to any area that is experiencing dust or equipment operations that require additional dust suppression measures; • The project applicant shall maintain a 15 mph speed limit on roads where water application is the sole form of dust control, and shall post signs to remind workers throughout the work areas. The project applicant shall monitor to ensure compliance with the speed limit. As an additional measure, all of the cart operators shall be required to complete a <u>buggy cart training course prior to operation of any vehicle carts on site</u>; • Water truck operations shall adjust their spraying methods according to the conditions. For example, during windy conditions trucks should point the water spray downward. In silty soils, trucks should use light front spray followed by the heavier back spray. In clay soils, a heavy spray is applied well before traffic is expected in the area. This set of techniques shall be conveyed to new water truck operators when they arrive to the work site; | <p>for NO_x (such as use of off-road equipment with Tier 3 III engines) and PM₁₀ (such as watering program for dust control). As shown in Table 4.3-5, despite implementation of mitigation measure AQ-2(a), AQ-2(b), and AQ-2(c), temporary construction emissions would continue to exceed MBUAPCD thresholds for NO_x and PM₁₀. In addition, due to the proximity of the site to other air basins, construction emissions could potentially impact air quality in those air basins. No other feasible measures are available that would further reduce construction emissions. <u>Implementation of Mitigation Measures AQ-2(a), AQ-2(b), and AQ-2(c) would help maintain compliance with MBUAPCD Rule 402.</u> Therefore <u>However, due to the exceedance of MBUAPCD thresholds for construction activity,</u> impacts would remain significant and unavoidable during construction.</p> |



**Table 4.3-1
Impact and Mitigation Summary: Air Quality**

| Impact | Mitigation Measures | Residual Impact |
|--------|--|-----------------|
| | <ul style="list-style-type: none"> • Where access by water trucks is limited by structures or conditions, hand-operated water tanks (i.e. water buffalos) shall be used to provide dust control. Hand-operated water tanks can be used to apply water directly to the work area by crew members; • Heavy construction equipment traveling on unstabilized dirt roads on the project site shall be preceded by a water truck to dampen roadways and reduce dust from transportation along such on-site dirt roads; • All dirt stock pile areas shall be sprayed daily as needed; • Permanent dust control measures identified in the proposed Habitat Restoration and Revegetation Plan [refer to Biology Mitigation Measure B-2(b)] shall be implemented as soon as possible following completion of any soil disturbing activities; • Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established; • All roads shall be stabilized using gravel, <u>non-toxic</u> chemical soil binders (e.g., <u>latex acrylic copolymer</u>), jute netting, or other methods approved in advance by the Monterey County RMA – Planning Department. <u>If necessary, the Monterey County RMA – Planning Department may refer to the list of approved dust control suppressants in the SLOAPCD CEQA Air Quality Handbook Technical Appendix 4.3.</u> For all structure pads and other areas to be paved, seeding or soil binders shall be used if construction or paving will not occur within 10 days of grading; • Install track-out control devices where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site; • Sweep paved/unpaved roadways boundaries (e.g. project entrance roadways) at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water shall be used where feasible; • All of these fugitive dust mitigation measures shall be shown on grading and building plans; and • The contractor or builder shall designate a <u>site dust manager</u> and up to four persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. As necessary, the monitor shall have the authority to require additional dust control measures be | |



**Table 4.3-1
Impact and Mitigation Summary: Air Quality**

| Impact | Mitigation Measures | Residual Impact |
|--------|---|-----------------|
| | <p>implemented. The monitor shall file monthly reports to the Monterey County RMA – Planning Department, including a daily log documenting monitoring activities, exceedances, and measures taken to reduce dust emissions. Their duties shall include weekdays, holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the Monterey County RMA – Planning Department and the APCD Compliance Division prior to the start of any grading, earthwork or demolition. <u>In addition, the log of monitoring activities shall be provided to APCD for confirmation that dust control measures are meeting the requirements of Rule 402.</u></p> <p><u>AQ-2(b) Emission-Reduction Measures for Construction Equipment Idling Restrictions.</u> The Project Applicant and/or Contractor shall be responsible for implementing the following mitigation measures throughout the duration of construction. Prior to the issuance of any grading permit, the Project Applicant and/or Contractor shall submit construction drawings to the Monterey County RMA – Planning Department and RMA – Building Services for review and approval that include <u>the following measures on all plans and specifications:</u></p> <ul style="list-style-type: none"> • <u>Idling Restrictions Near Sensitive Receptors for Both On and off-Road Equipment (applicable to northernmost edge of the project site only), including:</u> <ul style="list-style-type: none"> ○ Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors; ○ Diesel idling within 1,000 feet of sensitive receptors is not permitted; ○ Use of alternative fueled equipment is recommended whenever possible; and, ○ Signs that specify the no idling requirements must be posted and enforced at the construction site. • <u>Operational NO_x and Diesel PM Emissions Reduction Measures for Construction Equipment</u> <ul style="list-style-type: none"> ○ <u>All construction equipment shall be maintained in proper tune according to manufacturer’s specifications;</u> ○ <u>All off-road and portable diesel powered equipment shall be fueled with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);</u> ○ <u>Use of on-road heavy-duty trucks that meet the ARB’s 2007 or cleaner certification standard for on-road heavy-duty diesel engines;</u> | |



**Table 4.3-1
Impact and Mitigation Summary: Air Quality**

| Impact | Mitigation Measures | Residual Impact |
|--------|---|-----------------|
| | <ul style="list-style-type: none"> ○ <u>On- and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5-minute idling limit;</u> ○ <u>Use of electrically-powered equipment when feasible;</u> ○ <u>Gasoline-powered equipment shall be substituted in place of diesel-powered equipment, where feasible; and</u> ○ <u>If available, use of alternatively fueled construction equipment on-site, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.</u> <p><u>AQ-2(c) Tier 3 Construction Equipment.</u> <u>All off-road construction diesel engines not registered under the California Air Resources Board's Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower (hp) or more, shall meet, at a minimum, the Tier 3 California Emissions Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, section 2423(b)(1) unless such engine is not available for a particular item of equipment.</u></p> <p><u>Construction or trucking companies with fleets that do not have engines in their fleet that meet the Tier 3 standards identified in the above two measures (e.g. captive or NOx exempt area fleets) may be eligible by proving alternative compliance. If a Tier 3 (or equivalent alternative compliance) engine is not available for any off-road engine larger than 50 hp, that engine will have tailpipe retrofit controls that reduce exhaust emissions of NO_x and PM to no more than Tier 2 emission levels. Tier 1 engines will be allowed on a case-by-case basis only when the project applicant has documented that no Tier 2 equipment or emissions equivalent retrofit equipment is available for a particular equipment type that must be used to complete project construction. This shall be documented with signed written correspondence by the appropriate construction contractor along with documented correspondence with at least two construction equipment rental firms. A list of the construction equipment used on-site and the associated EPA Tier shall be submitted to the County of Monterey RMA-Planning Department quarterly to verify implementation of measure.</u></p> | |



**Table 4.3-1
Impact and Mitigation Summary: Air Quality**

| Impact | Mitigation Measures | Residual Impact |
|---|--|--|
| <p>Impact AQ-4 The project would not expose sensitive receptors to substantial pollutant concentrations associated with construction dust, carbon monoxide hotspots, toxic air contaminants, or naturally-occurring asbestos. Impacts related to localized pollutants would therefore be Class III, less than significant. [Threshold 4]</p> | <p>No mitigation measures are required. Mitigation Measures AQ-2(a), and AQ-2(b), and AQ-2(c) would further reduce exposure of sensitive receptors to substantial pollutant concentrations.</p> | <p>Impacts would be less than significant without mitigation.</p> |
| <p>Impact AQ-6 Construction activities could generate dust and expose sensitive receptors to potential health hazards associated with the <i>Coccidioides</i> fungus (Valley Fever). Impacts related to Valley Fever would be Class II, significant but mitigable. [Threshold 4]</p> | <p>AQ-6(a) Valley Fever Management Plan. The project applicant shall <u>identify and retain a licensed occupational medicine physician (M.D.) specializing in pulmonary epidemiology, subject to approval by the consult with the Monterey County Health Department (Health Officer), the MBUAPCD, and the California Occupational Safety and Health Administration (Cal/OSHA) Compliance Program to assist with the development and implementation of a Valley Fever Management Plan (VFMP). The VFMP shall that includes a job hazard analysis [in compliance with California Occupational Safety and Health Administration (Cal/OSHA) regulations] for any worker that will be exposed to dust. The VFMP shall further include specific measures to reduce the potential for exposure to Valley Fever. The project applicant and the Monterey County Health Department may consult with MBUAPCD and the Cal/OSHA Compliance Program as needed in identifying a specialist M.D. and in developing the VFMP.</u></p> <p>Prior to issuance of grading permits, the applicant shall submit the <u>Valley Fever Management Plan VFMP</u> to the Monterey County RMA—Planning Health Department for review and approval. The <u>Valley Fever Management Plan VFMP</u> shall include a program to evaluate the potential for exposure to Valley Fever from construction activities and to identify appropriate dust management and safety procedures that shall be implemented, as needed, to minimize personnel worker and public exposure to <u>potential Valley Fever-containing dust potentially containing the <i>Coccidioides</i> spore.</u> Measures in the <u>Valley Fever Management Plan VFMP</u>, which shall be implemented as applicable may include the following:</p> <ul style="list-style-type: none"> • Provide HEP-filtered air-conditioned enclosed cabs on heavy equipment. Train workers on proper use of cabs, such as turning on air conditioning prior to using the equipment. • Provide communication methods, such as two-way radios, for use in enclosed cabs. • Provide National Institute for Occupational | <p>The required mitigation measures, in combination with Mitigation Measure AQ-2(a), would minimize the risk of exposure for construction personnel and off-site receptors to a less than significant level.</p> |



**Table 4.3-1
Impact and Mitigation Summary: Air Quality**

| Impact | Mitigation Measures | Residual Impact |
|--------|---|-----------------|
| | <p>Safety and Health (NIOSH)-approved respirators for workers.</p> <ul style="list-style-type: none"> • Conduct a job hazard analysis in compliance with Cal/OSHA regulations for any worker that will be exposed to dust. • Require National Institute for Occupational Safety and Health (NIOSH)-approved half-face respirators equipped with N-100 or P-100 filters to be used during digging any worker collocation with surface disturbance activities if determined to be warranted after conducting a needed based upon the applicable job hazard analysis. Require employees to wear respirators when working near earth-moving machinery if determined to be warranted after conducting a job hazard analysis. • Cause employees to <u>Workers that are required to use respirators as determined by a job hazard analysis shall be medically evaluated, fit-tested, and properly trained on the use of the respirators, and implement a full respiratory protection program shall be implemented in accordance with the applicable Cal/OSHA Respiratory Protection Standard (8 CCR 5144).</u> • Provide separate, clean eating areas with hand-washing facilities. • Thoroughly clean construction tools, equipment, and vehicles with water before they are moved offsite to other work locations. • Wheel washing facilities with water recycling systems shall be provided at all site egress points. Vehicles leaving the site on a daily basis shall utilize wheel washing facilities in order to reduce dust migration off the project site. Equipment inspection and washing stations shall be established and manned at each construction equipment access/egress point. Spot examination of construction equipment for water washing via portable equipment in accordance with SWPPP BMPs shall be performed in order to prevent track-out of transport of material potentially carrying the Coccidioides spore. • <u>Suitable coveralls and change facilities shall be made available to all on-site workers. On site workers Workers performin work in areas where fresh ground disturbance presents a risk of exposure to the Coccidioides spore shall be required to change clothes after work every day before leaving the work site, to prevent distribution of Coccidioides to non-endemic areas, as determined to be needed based upon the applicable job hazard analysis. As an alternative, disposable Tyvek® or equivalent work suits and work boots for use on-site shall be provided for workers.</u> • <u>Establish sub-contract language clearly</u> | |



**Table 4.3-1
Impact and Mitigation Summary: Air Quality**

| Impact | Mitigation Measures | Residual Impact |
|--------|--|-----------------|
| | <p><u>indicating that all subcontractors are obligated to comply fully with the meaning and intent of Title 8 California Code of Regulations Sections 5141 and 5144, subject to audit and contract enforcement by the applicant.</u></p> <ul style="list-style-type: none"> • <u>Establish and execute auditing protocols to ensure subcontractor compliance with all provisions of the VFMP and provide monthly audit summary data, potential deviations noted and corrective actions implemented to the Monterey County Department of Health and County of Monterey RMA-Planning Department.</u> • <u>Work with a medical professional. Each primary employer of contracted workers shall be required by the terms and conditions of their contract for services to retain and consult with an Occupational Medicine Professional, licensed by either the Medical Board of California or the Osteopathic Board of California to develop a protocol to medically evaluate employees who develop symptoms of Valley Fever. Reporting of symptoms of Valley Fever and diagnosed cases of Valley Fever must occur consistent with Cal/OSHA County and State requirements.</u> <p>AQ-6(b) Additional Valley Fever Dust Suppression Measures. <u>If peak daily wind speeds exceed 15 mph or peak daily temperatures exceed 95 degrees Fahrenheit for three consecutive days, additional dust suppression measures (such as additional water or the application of additional soil stabilizer) shall be implemented prior to and immediately following ground disturbing activities. The additional dust suppression shall continue until winds are 10 mph or lower and outdoor air temperatures are below a peak daily temperature of 90 degrees for at least two consecutive days. The additional dust suppression measures shall be incorporated into the Final Construction Management Plan. The Final Construction Management Plan shall be submitted to the County of Monterey RMA-Planning Department for review and approval prior to the issuance of any grading permit commencing ground disturbing activities (e.g., grading, filling, trenching).</u></p> <p>AQ-6(d) Valley Fever Worker Training Program and Safety Measures. <u>Prior to any project grading activity, the primary project construction contractor shall prepare and implement a worker training program that describes potential health hazards associated with Valley Fever, common symptoms, proper safety procedures to minimize health hazards, and notification procedures if suspected work-related symptoms are identified during</u></p> | |



**Table 4.3-1
Impact and Mitigation Summary: Air Quality**

| Impact | Mitigation Measures | Residual Impact |
|--------|--|-----------------|
| | <p>construction, <u>including the fact that certain ethnic groups and immune-compromised persons are at greater risk of becoming ill with Valley Fever</u>. The objective of the training shall be to ensure the workers are aware of the danger associated with Valley Fever. The worker training program shall be included in the standard in-person training for project workers, and shall identify safety measures to be implemented by construction contractors during construction, including all safety measures included in the Valley Fever Management Plan prepared pursuant to Mitigation Measure AQ-6(a). Prior to initiating any grading, the project applicant shall provide the Monterey County RMA – Planning Department and the County of Monterey Environmental <u>County Health Bureau Department</u> with copies of all educational training material for review and approval. No later than 30 days after any new employee or employees begin work, the project applicant shall submit evidence to the Monterey County RMA – Planning Department that each employee has acknowledged receipt of the training (e.g., sign-in sheets with a statement verifying receipt and understanding of the training).</p> <p>AQ-6(e) Valley Fever Information Handout. The applicant shall work with a medical professional, in consultation with the <u>Monterey County Health Department</u>, to develop an educational handout for on-site workers and surrounding residents within three miles of the project site, and include the following information on Valley Fever: what are the potential sources/ causes, what are the common symptoms, what are the options or remedies available should someone be experiencing these symptoms, and where testing for exposure <u>infection</u> is available. Prior to construction permit issuance, this handout shall have been created by the applicant and reviewed by the County. No less than 30 days prior to any <u>surface disturbance (e.g., grading, filling, trenching)</u> work commencing, this handout shall be mailed to all existing residences within three miles of the project boundaries.</p> | |



**Table 4.3-1
Impact and Mitigation Summary: Air Quality**

| Impact | Mitigation Measures | Residual Impact |
|---|--|---|
| <p>Impact AQ-7 The proposed project would result in temporary air quality impacts as a result of project decommissioning. The extent of these effects would depend on future conditions in effect at that time, although project decommissioning is anticipated to result in air quality impacts comparable to project construction. Impacts related to decommissioning would be Class I, significant and unavoidable. [Thresholds 2, 3]</p> | <p>Mitigation Measures AQ-2(a), and AQ-2(b), and AQ-2(c) would reduce fugitive dust and exhaust emissions associated with project decommissioning. These mitigation measures, or equivalent measures based on available technology at the time of project decommissioning, would be required during project decommissioning, if proposed.</p> | <p>As described in Impact AQ-2, Mitigation Measures AQ-2(a), and AQ-2(b), and AQ-2(c) would reduce project construction emissions, but emissions would remain significant and unavoidable. Therefore, emissions from decommissioning remain significant and unavoidable.</p> |
| <p>Impact AQ-9 Construction of the proposed project would result in the temporary generation of air pollutants, which would affect local air quality. Short-term emissions of ozone precursors and PM₁₀ during the construction period would exceed SLOAPCD thresholds. Impacts would be Class I, significant and unavoidable. [Threshold 2]</p> | <p>Mitigation Measures AQ-2(a), and AQ-2(b), and AQ-2(c) are required for the proposed project, and are based on SLOAPCD recommendations for mitigating construction emission thresholds of significance. These measures are consistent with standard MBUAPCD and SLOAPCD recommended measures, and would ensure that construction-phase mitigation is uniformly applied across the project. Thus, separate additional mitigation is not required for the portion of the project within SLOAPCD. In addition, SLOAPCD CEQA Air Quality Handbook (April 2012) requires <u>projects that cannot mitigated their construction emissions below the SLOAPCD thresholds of significance with on-site mitigation to develop a Construction Activity Management Plan that includes off-site mitigation to reduce emissions below the applicable threshold. Preparation of a Final Construction Management Plan (CMP) is required by APM-2, described in Section 2.0, Project Description. Therefore, the following mitigation measure is required to minimize construction emissions within the SCCAB:</u></p> <p><u>AQ-9 Construction Management Plan Requirements.</u> The Final Construction Management Plan (CMP) proposed as Applicant Proposed Measure 2 (APM-2) shall include the following construction emissions reduction measures, recommended by SLOAPCD:</p> <ul style="list-style-type: none"> • <u>Best Available Control Technology for Construction equipment (BACT) measures to reduce construction emissions, which can include:</u> <ul style="list-style-type: none"> ○ <u>Repowering equipment with the cleanest engines available;</u> ○ <u>Installing California Verified Diesel Emission Control Strategies. These strategies are listed at:</u> http://www.arb.ca.gov/diesel/verdev/vt/cv.c.htm | <p>Even w With implementation of these m Mitigation m Measures AQ-2(a), AQ-2(b), AQ-2(c), and AQ-9, temporary emissions <u>within the SCCAB</u> during construction would <u>be reduced to the maximum extent feasible, but would continue to exceed ambient air quality standards within the SCCAB.</u> Therefore, the impact would be significant and unavoidable.</p> |



**Table 4.3-1
Impact and Mitigation Summary: Air Quality**

| Impact | Mitigation Measures | Residual Impact |
|--------|---|-----------------|
| | <ul style="list-style-type: none"> • <u>Schedule activities to minimize the amount of large construction equipment operating simultaneously during any given time period;</u> and • <u>Scheduling of construction truck trips during non-peak hours to reduce peak hour emissions;</u> <p>The CMP shall be submitted to the County of Monterey RMA-Planning Department for review and approval.</p> | |

Total Short-Term Construction Emissions discussion under Impact AQ-2:

Total Short-Term Construction Emissions. As described above and shown in Table 4.3-5, temporary emissions during construction would exceed MBUAPCD thresholds for PM₁₀ and NO_x. As described in Section 2.0, Project Description, the project includes APM-2 through APM-5, which would reduce temporary emissions associated with construction of the proposed project. Project construction activity would be required to comply with MBUAPCD Rule 402, which states that:

No person shall discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or which endanger the comfort, repose, health, or safety of any such persons or the public; or which cause, or have a natural tendency to cause, injury or damage to business or property. {CAL. HSC Section 41700}

Therefore However, short-term air quality emissions during project construction would be remain potentially significant.

Mitigation measures and *Significance After Mitigation* discussion for Impact AQ-2:

- AQ-2(a) Dust Control Measures.** The project applicant and/or contractor shall be responsible for implementing the following mitigation measures throughout the duration of construction. Prior to the issuance of any grading permit, the project applicant and/or contractor shall submit construction drawings to the Monterey County RMA - Planning Department and RMA - Building Services for review and approval that include the following measures on all plans and specifications:
- The grading plan design shall minimize the amount of disturbed area to the extent feasible; ;
 - Water trucks or sprinkler systems shall be used in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency shall be required whenever wind speeds exceed 15 mph.



Reclaimed (non-potable) water shall be used whenever possible;

- In order to avoid long distances and associated travel time between source wells and the work area, the project applicant shall employ the use of on-site temporary pipelines, stand tanks or other measures to reduce water truck travel on unstable, disturbed surfaces to move water to the current work area and thereby reduce fill times for water trucks;
- To best address fugitive dust proximal to workers, the project applicant shall establish clear boundaries for the assignment of dust control as between the principal EPC contractor and subcontractors. The subcontractors shall be required to maintain dust control in their work area. Maps showing each contractor's area of responsibility for dust control shall be distributed as work areas change. These maps shall be given to each water truck driver in an effort to reduce duplication of efforts while assuring full coverage. Water trucks shall be assigned to specific crews or areas. In addition, each water truck driver shall be equipped with a radio to respond to any area that is experiencing dust or equipment operations that require additional dust suppression measures;
- The project applicant shall maintain a 15 mph speed limit on roads where water application is the sole form of dust control, and shall post signs to remind workers throughout the work areas. The project applicant shall monitor to ensure compliance with the speed limit. As an additional measure, all of the cart operators shall be required to complete a buggy cart training course prior to operation of ~~any vehicle carts~~ on site;
- Water truck operations shall adjust their spraying methods according to the conditions. For example, during windy conditions trucks should point the water spray downward. In silty soils, trucks should use light front spray followed by the heavier back spray. In clay soils, a heavy spray is applied well before traffic is expected in the area. This set of techniques shall be conveyed to new water truck operators when they arrive to the work site;
- Where access by water trucks is limited by structures or conditions, hand-operated water tanks (i.e. water buffalos) shall be used to provide dust control. Hand-operated water tanks can be used to apply water directly to the work area by crew members;



- Heavy construction equipment traveling on unstabilized dirt roads on the project site shall be preceded by a water truck to dampen roadways and reduce dust from transportation along such on-site dirt roads;
- All dirt stock pile areas shall be sprayed daily as needed;
- Permanent dust control measures identified in the proposed Habitat Restoration and Revegetation Plan [refer to Biology Mitigation Measure B-2(b)] shall be implemented as soon as possible following completion of any soil disturbing activities;
- Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established;
- All roads shall be stabilized using gravel, non-toxic chemical soil binders (e.g., latex acrylic copolymer), jute netting, or other methods approved in advance by the Monterey County RMA - Planning Department. If necessary, the Monterey County RMA - Planning Department may refer to the list of approved dust control suppressants in the SLOAPCD CEQA Air Quality Handbook Technical Appendix 4.3. For all structure pads and other areas to be paved, seeding or soil binders shall be used if construction or paving will not occur within 10 days of grading;
- Install track-out control devices where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site;
- Sweep paved/unpaved roadways boundaries (e.g. project entrance roadways) at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water shall be used where feasible;
- All of these fugitive dust mitigation measures shall be shown on grading and building plans; and
- The contractor or builder shall designate a site dust manager and up to four persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. As necessary, the monitor shall have the authority to require additional dust control measures be implemented. The monitor shall file monthly reports to the Monterey County RMA - Planning Department, including a daily log



documenting monitoring activities, exceedances, and measures taken to reduce dust emissions. Their duties shall include weekdays, holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to RMA-Planning and the APCD Compliance Division prior to the start of any grading, earthwork or demolition. In addition, the log of monitoring activities shall be provided to APCD for confirmation that dust control measures are meeting the requirements of Rule 402.

AQ-2(b)

Emission-Reduction Measures for Construction Equipment Idling Restrictions. The Project Applicant and/or Contractor shall be responsible for implementing the following mitigation measures throughout the duration of construction. Prior to the issuance of any grading permit, the Project Applicant and/or Contractor shall submit construction drawings to RMA-Planning and RMA - Building Services for review and approval that include the following measures on all plans and specifications:

- **Idling Restrictions Near Sensitive Receptors for Both On and Off-Road Equipment** (applicable to northernmost edge of the project site only), including:
 - Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
 - Diesel idling within 1,000 feet of sensitive receptors is not permitted;
 - ~~Use of alternative fueled equipment is recommended whenever possible;~~ and,
 - Signs that specify the no idling requirements must be posted and enforced at the construction site.
- **Operational NO_x and Diesel PM Emissions Reduction Measures for Construction Equipment**
 - All construction equipment shall be maintained in proper tune according to manufacturer's specifications;
 - All off-road and portable diesel powered equipment shall be fueled with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);
 - Use of on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines;
 - On- and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or



- job sites to remind drivers and operators of the 5-minute idling limit;
- Use of electrically-powered equipment when feasible;
- Gasoline-powered equipment shall be substituted in place of diesel-powered equipment, where feasible; and
- If available, use of alternatively fueled construction equipment on-site, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.

AQ-2(c) Tier 3 Construction Equipment. All off-road construction diesel engines not registered under the California Air Resources Board's Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower (hp) or more, shall meet, at a minimum, the Tier 3 California Emissions Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, section 2423(b)(1) unless such engine is not available for a particular item of equipment.

Construction or trucking companies with fleets that that do not have engines in their fleet that meet the Tier 3 standards identified in the above two measures (e.g. captive or NO_x exempt area fleets) may be eligible by proving alternative compliance. If a Tier 3 (or equivalent alternative compliance) engine is not available for any off-road engine larger than 50 hp, that engine will have tailpipe retrofit controls that reduce exhaust emissions of NO_x and PM to no more than Tier 2 emission levels. Tier 1 engines will be allowed on a case-by-case basis only when the project applicant has documented that no Tier 2 equipment or emissions equivalent retrofit equipment is available for a particular equipment type that must be used to complete project construction. This shall be documented with signed written correspondence by the appropriate construction contractor along with documented correspondence with at least two construction equipment rental firms. A list of the construction equipment and the associated EPA Tier shall be submitted to the County of Monterey RMA-Planning Department prior to the issuance of a grading permit to verify implementation of measure.



Significance After Mitigation. Air emissions calculations were performed for both before and after the incorporation of the above-identified mitigation measures. The mitigation measures include those typically required by CARB and the MBUAPCD for NO_x (such as use of off-road equipment with Tier 3 ~~III~~ engines) and PM₁₀ (such as watering program for dust control). As shown in Table 4.3-5, despite implementation of Mitigation Measures AQ-2(a), ~~and~~ AQ-2(b), ~~and~~ AQ-2(c), temporary construction emissions would continue to exceed MBUAPCD thresholds for NO_x and PM₁₀. In addition, due to the proximity of the site to other air basins, construction emissions could potentially impact air quality in those air basins. No other feasible measures are available that would further reduce construction emissions. Implementation of Mitigation Measures AQ-2(a), AQ-2(b), and AQ-2(c) would help maintain compliance with MBUAPCD Rule 402. Therefore However, due to the exceedance of MBUAPCD thresholds for construction activity, impacts would remain significant and unavoidable during construction.

Fifth paragraph under Impact AQ-3:

...Overall, the project would have a net regional benefit in term of long-term emissions of operational criteria pollutants and thus, the operational impacts on regional air quality would be beneficial.

First paragraph of Impact AQ-4:

Construction Dust. As described under Impact AQ-2, project construction emissions would exceed MBUAPCD daily thresholds and would result in a significant and unavoidable impact even with the implementation of Mitigation Measures AQ-2(a), ~~and~~ AQ-2(b), ~~and~~ AQ-2(c). However, as described under Impact AQ-3, the project would have a beneficial impact on long-term air quality during operation. There are two sensitive receptors (single family residences) located approximately 775 feet and 1,000 feet north of the site boundary, and due to the proximity of these receptors to construction-related activities and overall size of the project site, these residences would only be exposed to construction activity for a relatively short portion of the total construction schedule...

Mitigation Measures discussion under Impact AQ-4:

Mitigation Measures. No mitigation measures are required. Mitigation Measures AQ-2(a), ~~and~~ AQ-2(b), ~~and~~ AQ-2(c) would further reduce exposure of sensitive receptors to substantial pollutant concentrations.

Third paragraph under Impact AQ-5:

Construction-related odors would be short-term, and would cease upon completion. There are two residences located within 1,000 feet of the project site, and due to the proximity of these receptors to construction-related activities and overall size of the project site, these residences would only be exposed to construction activity for a relatively short portion of the total construction schedule...



Last paragraph of Impact AQ-6:

The project applicant and all construction contractors operating on the site would be required implement all of California Title 8 safety and health regulations necessary to protect employees. As described in Section 2.0, Project Description, the project includes APM-3 through APM-5, which would reduce fugitive dust emissions associated with construction of the proposed project. Standard construction Best Management Practices (BMPs) to minimize fugitive dust emissions, as well as standard erosion control measures, would minimize potential hazards associated with the release of fungal spores and are consistent with the recommendations of the California Department of Public Health...

Mitigation Measure AQ-6(a):

AQ-6(a) Valley Fever Management Plan. The project applicant shall identify and retain a licensed occupational medicine physician (M.D.) specializing in pulmonary epidemiology, subject to approval by the consult with the Monterey County Health Department (Health Officer), the MBUAPCD, and the California Occupational Safety and Health Administration (Cal/OSHA) Compliance Program to assist with the to development and implementation of a Valley Fever Management Plan (VFMP). The VFMP shall that includes a job hazard analysis [in compliance with California Occupational Safety and Health Administration (Cal/OSHA) regulations] for any worker that will be exposed to dust. The VFMP shall further include specific measures to reduce the potential for exposure to Valley Fever. The project applicant and the Monterey County Health Department may consult with MBUAPCD and the Cal/OSHA Compliance Program as needed in identifying a specialist M.D. and in developing the VFMP.

Prior to issuance of grading permits, the applicant shall submit the Valley Fever Management Plan VFMP to the Monterey County RMA—Planning Health Department for review and approval. The Valley Fever Management Plan VFMP shall include a program to evaluate the potential for exposure to Valley Fever from construction activities and to identify appropriate dust management and safety procedures that shall be implemented, as needed, to minimize personnel worker and public exposure to potential Valley Fever-containing dust potentially containing the *Coccidioides* spore. Measures in the Valley Fever Management Plan VFMP, which shall be implemented as applicable may include the following:

- Provide HEP-filtered air-conditioned enclosed cabs on heavy equipment. Train workers on proper use of cabs,



such as turning on air conditioning prior to using the equipment.

- Provide communication methods, such as two-way radios, for use in enclosed cabs.
- ~~Provide National Institute for Occupational Safety and Health (NIOSH)-approved respirators for workers.~~
- ~~Conduct a job hazard analysis in compliance with Cal/OSHA regulations for any worker that will be exposed to dust.~~
- Require National Institute for Occupational Safety and Health (NIOSH)-approved-half-face respirators equipped with N-100 or P-100 filters to be used during digging any worker collocation with surface disturbance activities if determined to be ~~warranted after conducting a~~ needed based upon the applicable job hazard analysis. Require employees to wear respirators when working near earth-moving machinery if determined to be warranted after conducting a job hazard analysis.
- Cause employees to ~~Workers that are required to use respirators as determined by a job hazard analysis shall be medically evaluated, fit-tested, and properly trained on the use of the respirators, and implement a full respiratory protection program shall be implemented in accordance with the applicable Cal/OSHA Respiratory Protection Standard (8 CCR 5144).~~
- Provide separate, clean eating areas with hand-washing facilities.
- Thoroughly clean construction tools, equipment, and vehicles with water before they are moved offsite to other work locations.
- ~~Wheel-washing facilities with water recycling systems shall be provided at all site egress points. Vehicles leaving the site on a daily basis shall utilize wheel-washing facilities in order to reduce dust migration off the project site. Equipment inspection and washing stations shall be established and manned at each construction equipment access/egress point. Spot examination of construction equipment for water washing via portable equipment in accordance with SWPPP BMPs shall be performed in order to prevent track-out of transport of material potentially carrying the *Coccidioides* spore.~~
- Suitable coveralls and change facilities shall be made available to all on-site workers. On-site workers Workers performing work in areas where fresh ground disturbance presents a risk of exposure to the



Coccidioides spore shall be required to change clothes after work every day before leaving the work site, to prevent distribution of Coccidioides to non-endemic areas, as determined to be needed based upon the applicable job hazard analysis. As an alternative, disposable Tyvek® or equivalent work suits and work boots for use on-site shall be provided for workers.

- Establish sub-contract language clearly indicating that all subcontractors are obligated to comply fully with the meaning and intent of Title 8 California Code of Regulations Sections 5141 and 5144, subject to audit and contract enforcement by the applicant.
- Establish and execute auditing protocols to ensure subcontractor compliance with all provisions of the VFMP and provide monthly audit summary data, potential deviations noted and corrective actions implemented to the Monterey County Department of Health and County of Monterey RMA-Planning Department.
- Work with a medical professional. Each primary employer of contracted workers shall be required by the terms and conditions of their contract for services to retain and consult with an Occupational Medicine Professional, licensed by either the Medical Board of California or the Osteopathic Board of California to develop a protocol to medically evaluate employees who develop symptoms of Valley Fever. Reporting of symptoms of Valley Fever and diagnosed cases of Valley Fever must occur consistent with Cal/OSHA County and State requirements.

Mitigation Measure AQ-6(b):

- AQ-6(b) Additional Valley Fever Dust Suppression Measures.** If peak daily wind speeds exceed 15 mph or peak daily temperatures exceed 95 degrees Fahrenheit for three consecutive days, additional dust suppression measures (such as additional water or the application of additional soil stabilizer) shall be implemented prior to and immediately following ground disturbing activities. The additional dust suppression shall continue until winds are 10 mph or lower and outdoor air temperatures are below a peak daily temperature of 90 degrees for at least two consecutive days. The additional dust suppression measures shall be incorporated into the Final Construction Management Plan. The Final Construction Management Plan shall be submitted to the County of Monterey RMA-Planning Department for review and



approval prior to ~~the issuance of any grading permit~~
commencing ground disturbing activities (e.g., grading, filling,
trenching).

Mitigation Measure AQ-6(d):

AQ-6(d) Valley Fever Worker Training Program and Safety Measures. Prior to any project grading activity, the primary project construction contractor shall prepare and implement a worker training program that describes potential health hazards associated with Valley Fever, common symptoms, proper safety procedures to minimize health hazards, and notification procedures if suspected work-related symptoms are identified during construction, including the fact that certain ethnic groups and immune-compromised persons are at greater risk of becoming ill with Valley Fever. The objective of the training shall be to ensure the workers are aware of the danger associated with Valley Fever. The worker training program shall be included in the standard in-person training for project workers, and shall identify safety measures to be implemented by construction contractors during construction, including all safety measures included in the Valley Fever Management Plan prepared pursuant to Mitigation Measure AQ-6(a). Prior to initiating any grading, the project applicant shall provide the Monterey County RMA - Planning Department and the ~~County of Monterey~~ Environmental County Health Bureau Department with copies of all educational training material for review and approval. No later than 30 days after any new employee or employees begin work, the project applicant shall submit evidence to the Monterey County RMA - Planning Department that each employee has acknowledged receipt of the training (e.g., sign-in sheets with a statement verifying receipt and understanding of the training).

Mitigation Measure AQ-6(e) in Section 4.3, *Air Quality*:

AQ-6(e) Valley Fever Information Handout. The applicant shall work with a medical professional, in consultation with the Monterey County Health Department, to develop an educational handout for on-site workers and surrounding residents within three miles of the project site, and include the following information on Valley Fever: what are the potential sources/ causes, what are the common symptoms, what are the options or remedies available should someone be experiencing these symptoms, and where testing for ~~exposure~~ infection is available. Prior to construction permit issuance, this handout



shall have been created by the applicant and reviewed by the County. No less than 30 days prior to any surface disturbance (e.g., grading, filling, trenching) work commencing, this handout shall be mailed to all existing residences within three miles of the project boundaries.

The second paragraph under Impact AQ-7:

Before the proposed project site is decommissioned, pursuant to APM-1, the project proponent would prepare a decommissioning plan that identifies the specific plan and process that would be implemented during decommissioning, as well as the site-specific environmental, regulatory, and technological conditions at the time of decommissioning (See APM-1 in Table 2-4). As stated in Section 2, *Project Description*,⁷ at least 90 days prior to initiating any decommissioning activities, the project proponent shall submit design-level information (e.g., grading plans, demolition plans, etc.) to the County of Monterey for review. All design-level information shall be consistent with then-current County of Monterey planning and building requirements that may be necessary for the issuance of any grading, demolition, use or other necessary permit from the County of Monterey. The County may conduct additional CEQA review to ensure adequate prevention and/or mitigation of air quality impacts during decommissioning. However, due the potential for decommissioning-related impacts to regional air quality, including temporary air pollutant emissions (as discussed in Impact AQ-2), ~~exposure of sensitive receptors to substantial pollutant concentrations (as discussed in Impact AQ-4), odors (as discussed in Impact AQ-5),~~ and unmitigated exposure of sensitive receptors to potential health hazards associated with the *Coccidioides fungus* (as discussed in Impact AQ-6), this impact would be potentially significant

Mitigation Measure discussion under Impact AQ-9:

Mitigation Measures. Mitigation Measures AQ-2(a), ~~and~~ AQ-2(b), and AQ-2(c) are required for the proposed project, and are based on SLOAPCD recommendations for mitigating construction emission thresholds of significance. These measures are consistent with standard MBUAPCD and SLOAPCD recommended measures, and would ensure that construction-phase mitigation is uniformly applied across the project. ~~Thus, separate additional mitigation is not required for the portion of the project within SLOAPCD.~~ In addition, SLOAPCD CEQA Air Quality Handbook (April 2012) requires projects that cannot mitigate their construction emissions below the SLOAPCD thresholds of significance with on-site mitigation to develop a Construction Activity Management Plan that includes off-site mitigation to reduce emissions below the applicable threshold. Preparation of a Final Construction Management Plan (CMP) is required by APM-2, described in Section 2.0, Project Description. Therefore, the following mitigation measure is required to minimize construction emissions within the SCCAB:

AQ-9 Construction Management Plan Requirements. The Final Construction Management Plan (CMP) proposed as Applicant Proposed Measure 2 (APM-2) shall include, but not be limited



to, the following construction emissions reduction measures, recommended by SLOAPCD:

- Best Available Control Technology for Construction equipment (BACT) measures to reduce construction emissions, which can include:
 - Expanding use of Tier 3 and Tier 4 off-road and 2010 on-road compliant engines;
 - Repowering equipment with the cleanest engines available;
 - Installing California Verified Diesel Emission Control Strategies. These strategies are listed at: <http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>
- Schedule construction activities to minimize the amount of large construction equipment operating simultaneously during any given time period; and
- Scheduling of construction truck trips during non-peak hours to reduce peak hour emissions.

The CMP shall be submitted to the County of Monterey RMA-Planning Department for review and approval.

Significance After Mitigation. Even ~~w~~ With implementation of these ~~m~~ Mitigation ~~m~~ Measures AQ-2(a), AQ-2(b), AQ-2(c), and AQ-9, temporary emissions within the SCCAB during construction would be reduced to the maximum extent feasible, but would continue to exceed ambient air quality standards within the SCCAB. Therefore, the impact would be significant and unavoidable.

Section 4.4 Biological Resources

First paragraph of Section 4.4.2 (Setting):

...The BSA is an area of approximately 5,033 acres consisting of an approximately 4,184-acre study area around the Solar Generating Facility Area, an approximately 698-acre study area around the Access Road and an approximately 155-acre study area around the Utility Corridor (of which four acres overlap with the SGFASA). The various biological technical reports listed above refer to both the study areas and project impact areas (see below for a discussion of the project impact areas)...

Figure 4.4-1; revision shown on the following page.



Table 4.4-2:

**Table 4.4-2
Habitats Within the California Flats Solar Project Site Impact Areas***

| Habitat | Solar Generating Facility Area | Access Road | Utility Corridor |
|---------------------------------------|--------------------------------|-------------|------------------|
| Tree Dominated Habitats | | | |
| Willow-Cottonwood Riparian Woodland | 2.53 1.72 | -- | -- |
| Cottonwood Alluvial Riparian Woodland | -- | -- | -- |

Figure 4.4-2a through 4.4-2f; revisions shown on the following pages.

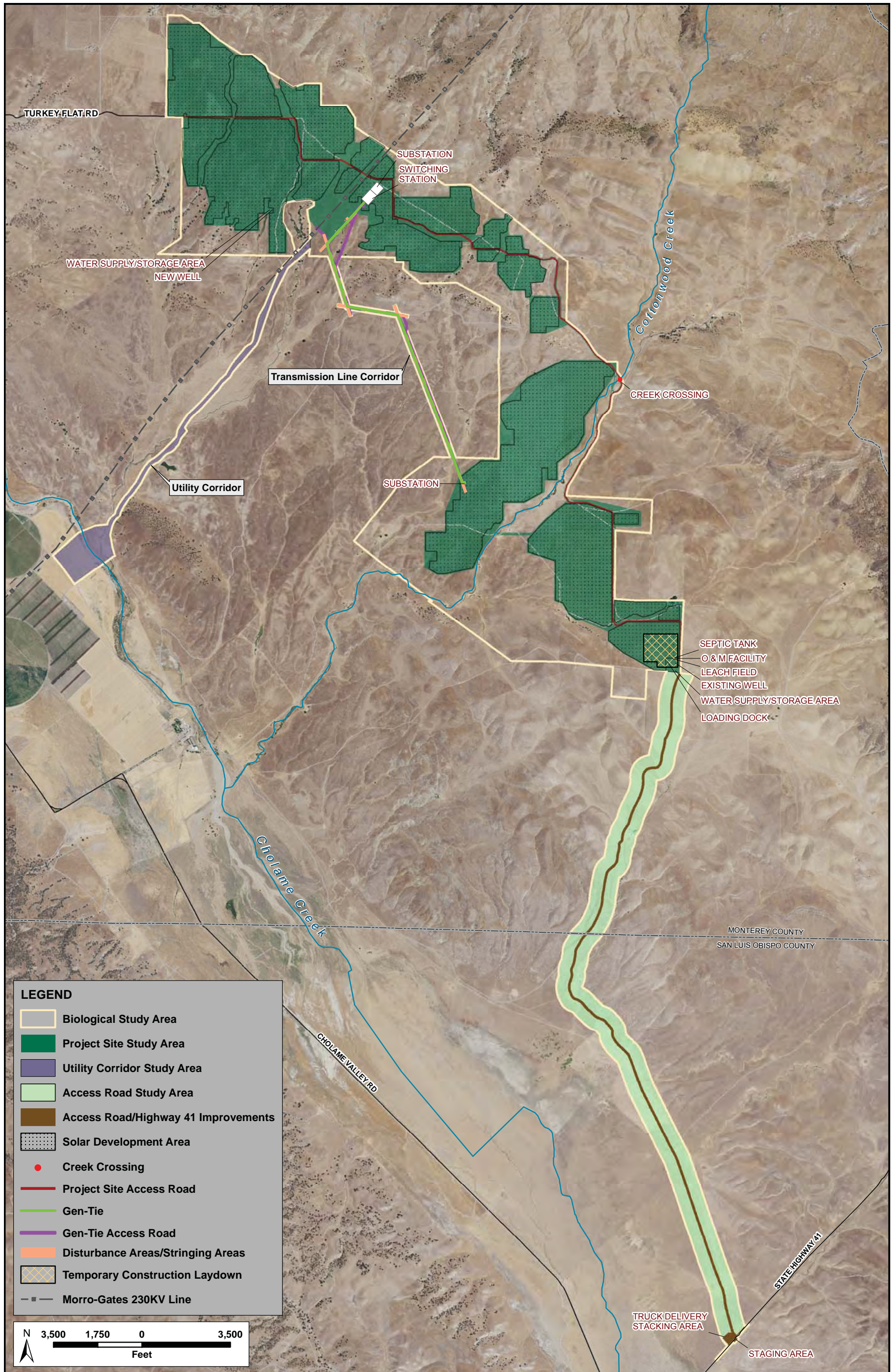
Third paragraph of the *Seasonal Wetland* discussion in Section 4.4.2(b) (Habitats):

The alkali wetlands on the BSA are concentrated in the northeastern corner where alkaline minerals have accumulated in the foothills and valley floor, forming a wetland complex where surface and subsurface water drains into the BSA from watersheds to the northeast (Figure ~~3a~~4.4-2a).

Sensitive Plant Communities and Critical Habitat discussion in Section 4.4.2(f) (Special Status Resources):

Sensitive Plant Communities and Critical Habitat. Three sensitive plant communities are known to occur within the vicinity of the BSA: Wildflower Fields, Great Valley Mesquite Scrub and Valley Sink Scrub. Neither Great Valley Mesquite Scrub nor Valley Sink Scrub plant communities were documented within the BSA; however, Wildflower Fields are present on ~~540.58~~551.87 acres within the Solar Generating Facility Area project site, and 0.271 acres in the Access Road, and 0.13 acres within the Utility Corridor. This community was not detected within the Utility Corridor. Wildflower field is considered to be a sensitive plant community by the CDFW. In addition, federally designated critical habitat for California red-legged frog (CRLF; *Rana draytonii*) and California tiger salamander (CTS: *Ambystoma californiense*) are mapped within five miles of the BSA...

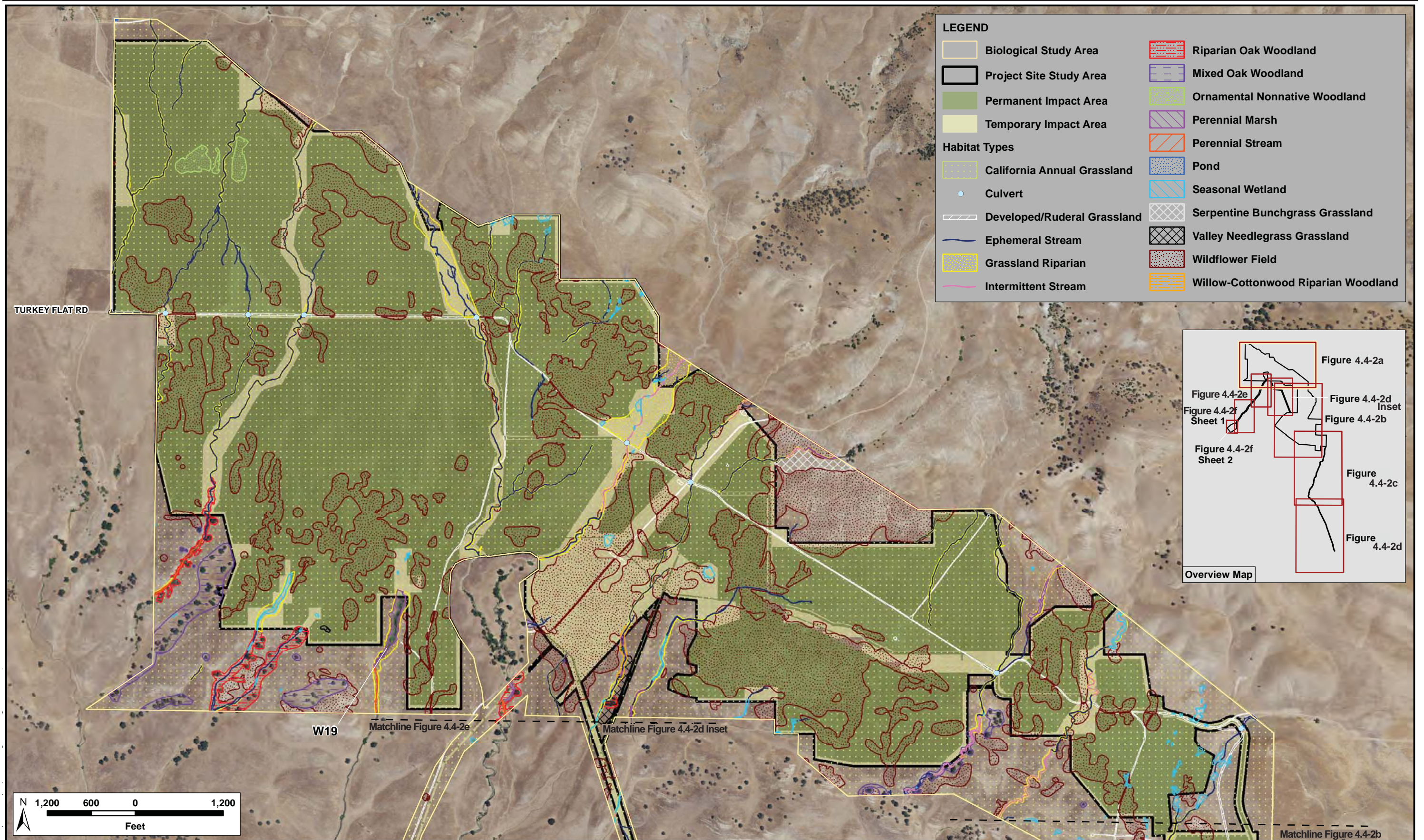


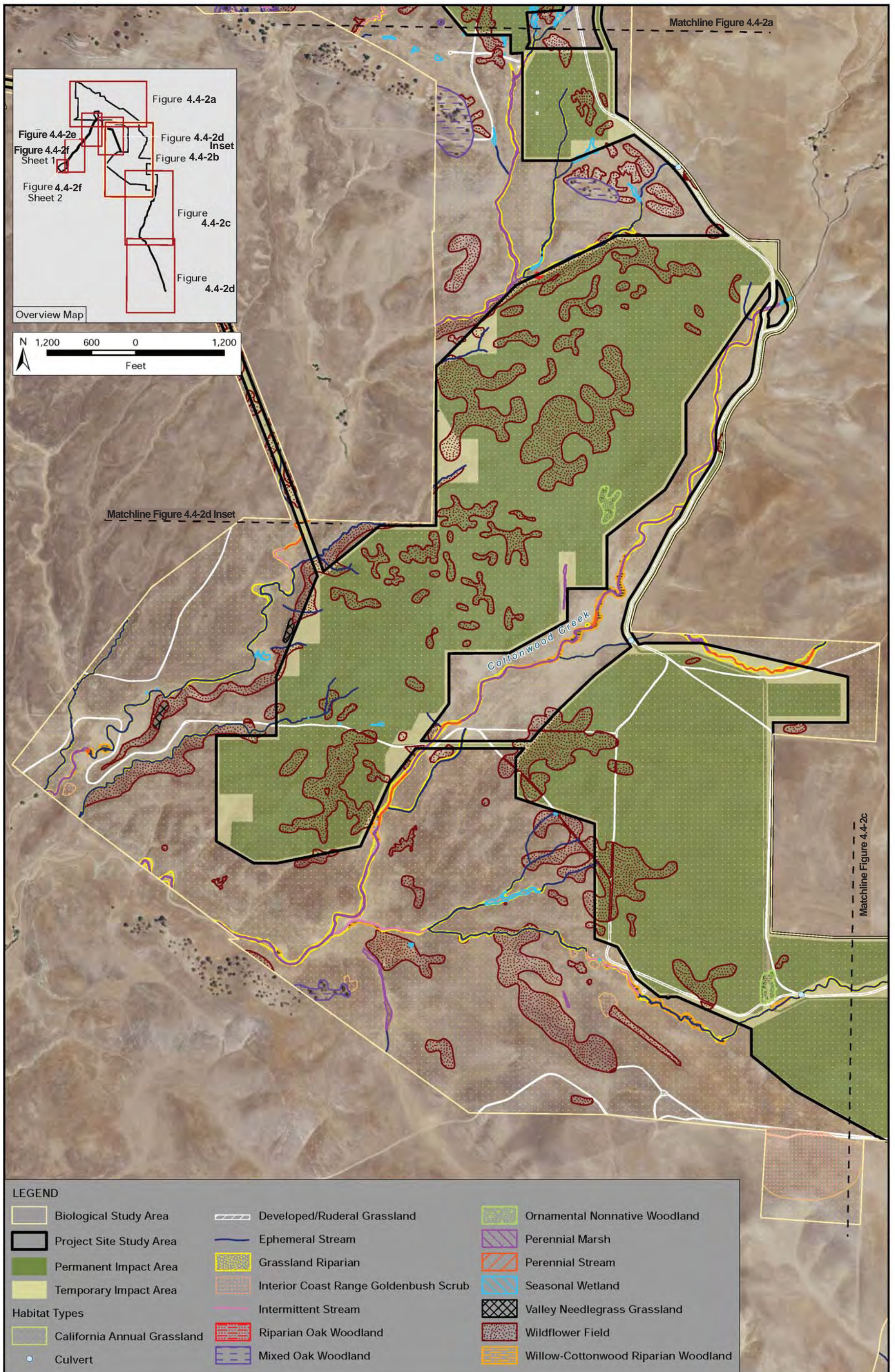


Biological Study Area

Figure 4.4-1
 County of Monterey

Source: Amy Sparks (H.T. Harvey & Associates) and First Solar, 2014





Habitat Map

Figure 4.4-2b
 County of Monterey

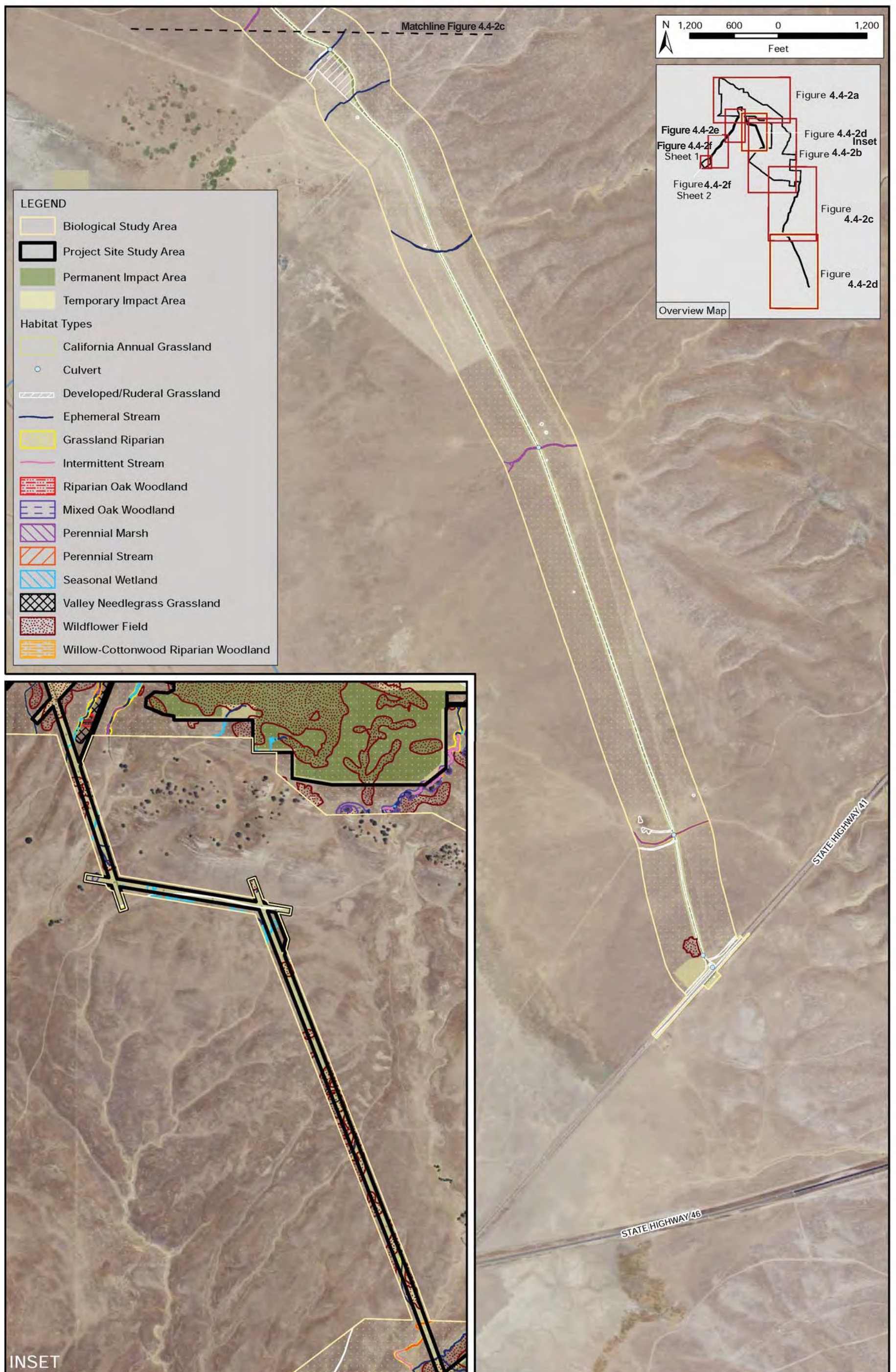
Source: Amy Sparks (H.T. Harvey & Associates) and First Solar, 2014



Habitat Map

Figure 4.4-2c
 County of Monterey

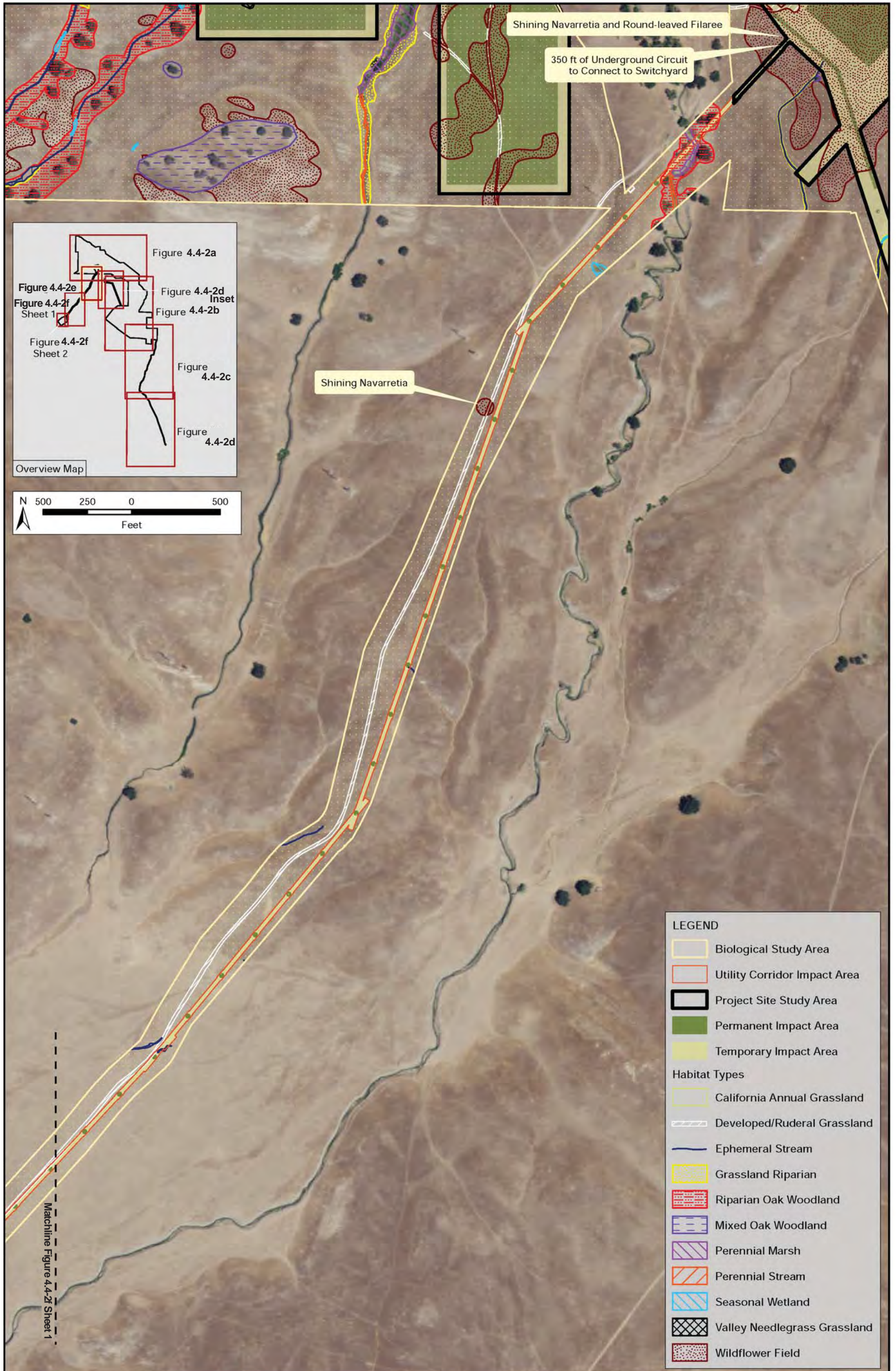
Source: Amy Sparks (H.T. Harvey & Associates) and First Solar, 2014



Habitat Map

Figure 4.4-2d
 County of Monterey

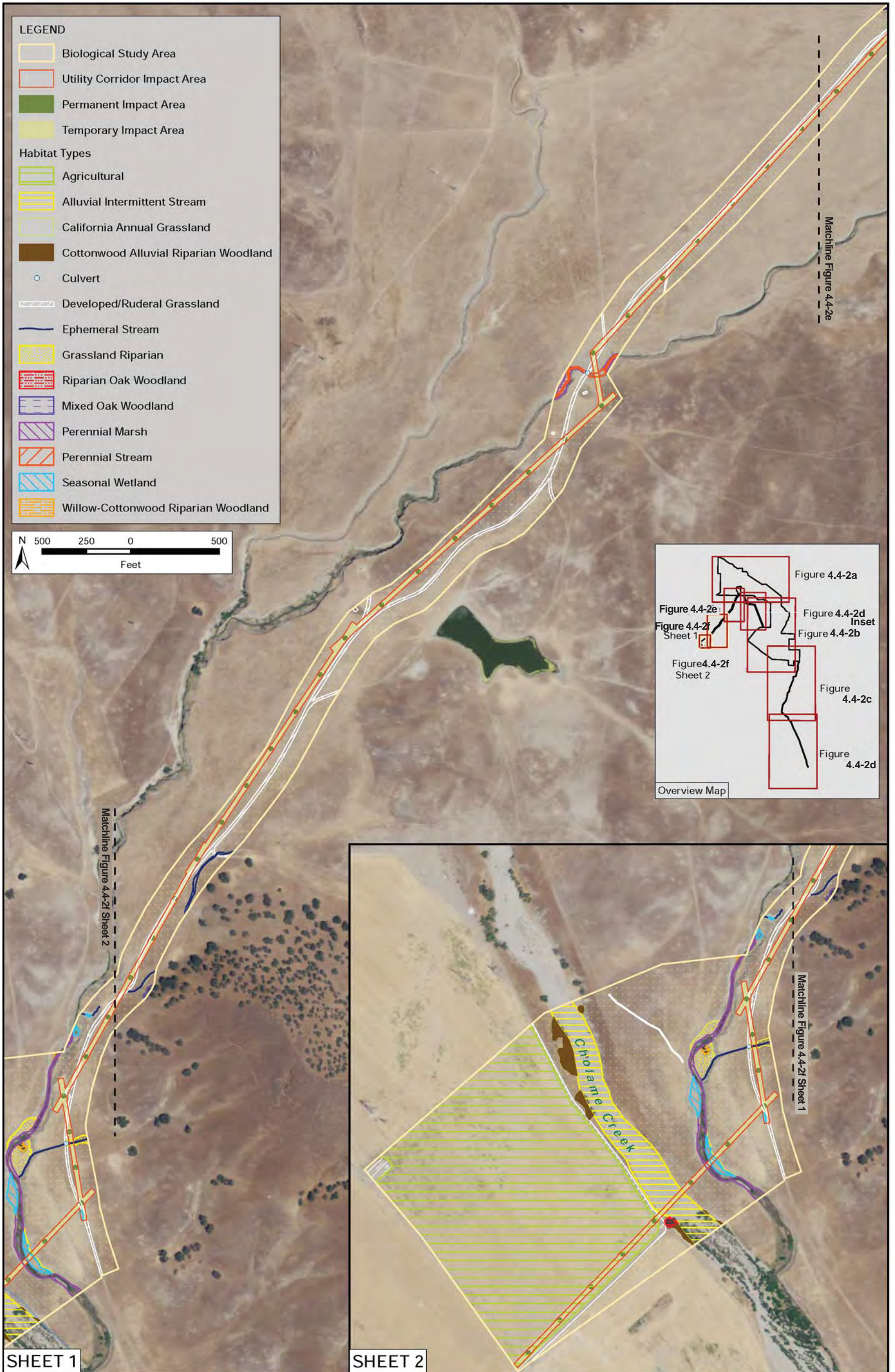
Source: Amy Sparks (H.T. Harvey & Associates) and First Solar, 2014



Habitat Map

Figure 4.4-2e
 County of Monterey

Source: Amy Sparks (H.T. Harvey & Associates) and First Solar, 2014



Habitat Map

Section 4.4.2(f) (Special Status Resources):

Special Status Plants and Animals. Special status plants and animals, their listing status, habitats, and potential to occur within the BSA are presented in Table 4.4-4. Figures 4.4-4 -4.4-6 depict the distribution of CNDDDB (2013) records of special status plant, reptiles and amphibians, and other wildlife species and critical habitat (respectively) in the vicinity of the BSA. Most of the 53 special status plants and 32 special status animal species known from the region and listed in Table 4.4-4 have at least some potential to occur within the BSA except for the yellow warbler (*Dendroica petechia*), Indian valley spineflower (*Aristocapsa insignis*), Hardham's suncup (*Camissonia hardhamiae*), ~~Hoover's eriastrum (*Eriastrum hooveri*)~~, delicate blue cup (*Githopsis tenella*), and San Antonio hill monardella (*Monardella antonina* ssp. *antonina*), ~~and Mason's neststraw (*Stylocline masonii*)~~.

Special Status Plants. Special status plant surveys were conducted from March through July 2013 across the BSA, except in the Utility Corridor area which was not part of the project at the time of these botanical surveys, in accordance with protocols established by the U.S. Fish and Wildlife Service (USFWS), CDFW, and CNPS. A variety of surveys were conducted including surveys focused on the direct impact areas for the project plus a 100-foot buffer, except in the Utility Corridor area as noted above; intuitively controlled surveys focused on approximately 1,449 acres of additional land within the BSA; and, regional contextual surveys of the project vicinity that covered approximately 10,000 acres spread out within a 5-mile radius of the BSA...

Figure 4.4-3; revisions shown on the following page.

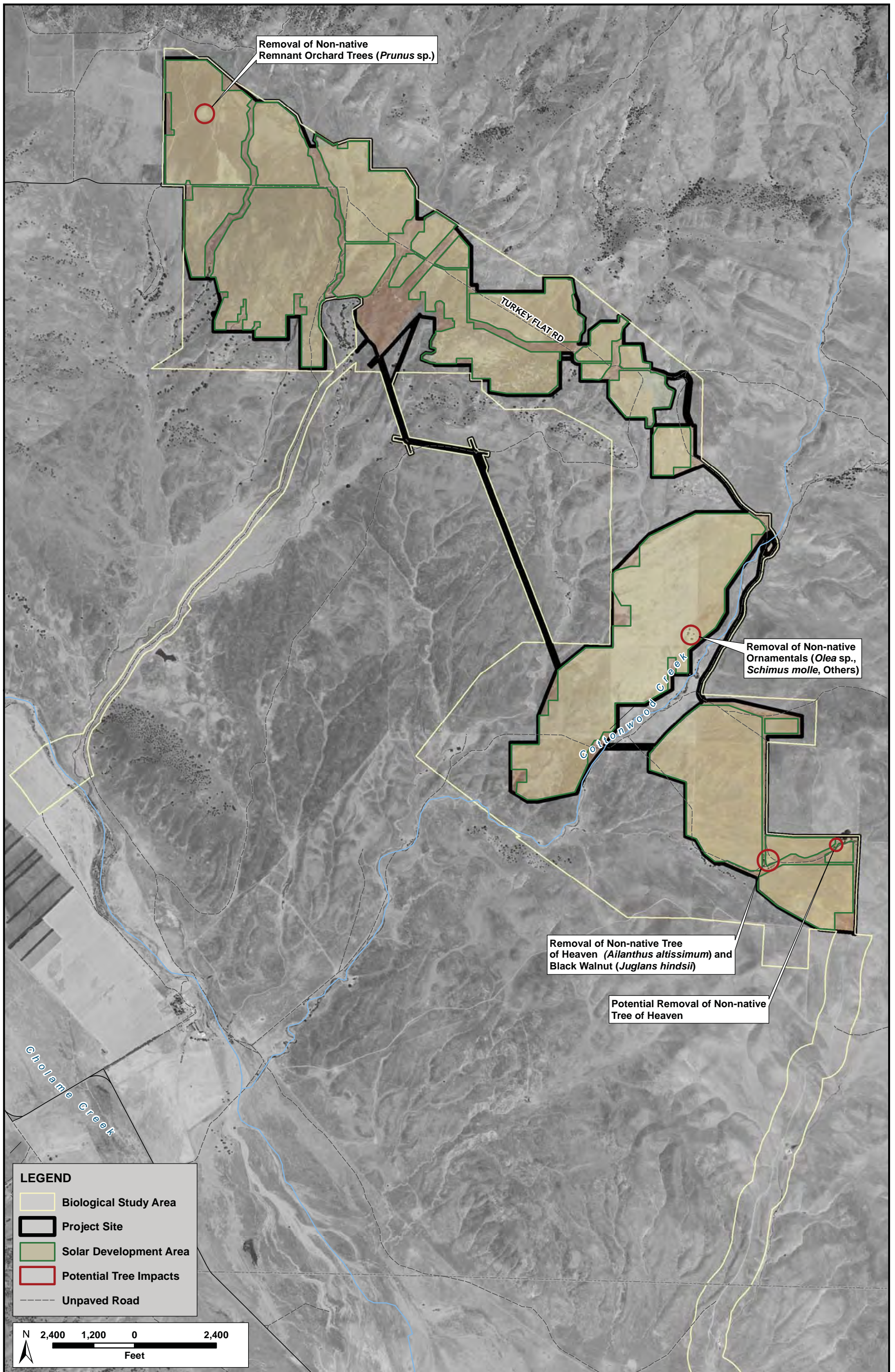
Table 4.4-4; revisions shown on the following pages.

Last paragraph before *Special Status Birds* discussion in Section 4.4.2(f) (Special Status Resources):

Note that the Utility Corridor was added to the project description after protocol rare plant surveys were completed. The presence or absence of many special status plant species has not yet been determined through protocol botanical surveys during preparation of the DEIR; however, the potential for occurrence ~~can~~could be evaluated, and Table 4.4-4 identifies those special status plant species with potential to occur in the Utility Corridor.

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General Location of Trees
within the Project Site

**Table 4.4-4
Special Status Species Known or with Potential to Occur Within the
Solar Generating Facility Area, Access Road, and Utility Corridor**

| Scientific Name Common Name | Status ^a Fed/State/ CRPR | Habitat Requirements | Potential for Occurrence within the Solar Generating Facility Area | Potential for Occurrence within the Access Road | Potential for Occurrence within the Utility Corridor |
|---|---|---|---|--|--|
| <i>Calochortus simulans</i> La Panza mariposa lily | --/--/1B.3 | Sandy, often decomposed granite, sometimes serpentinite, substrates in chaparrals, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland. | Absent-Unlikely. Marginally suitable habitat present, but not observed during protocol rare plant surveys in 2013. | Absent-Unlikely. Marginally suitable habitat present, but not observed during protocol rare plant surveys in 2013. | Unlikely. Marginally suitable soils present. |
| <i>Convolvulus simulans</i> small-flowered morning glory | --/--/4.2 | Clay soils and serpentinite seeps in valley and foothill grassland, coastal scrub, and openings in chaparral. | Present. Detected on the project site in 2013 during protocol rare plant surveys. | Absent. Not observed in Access Road corridor during 2013 protocol rare plant surveys. Present. Detected in the Access Road corridor during surveys in 2014. | Possible. Suitable habitat present. |
| <i>Cryptantha rattanii</i> Rattan's cryptantha | --/--/4.3 | Cismontane woodland, riparian woodland, and valley and foothill grassland habitats. | Absent Possible. Suitable habitat present, but not observed during protocol rare plant surveys in 2013. <u>No Reference populations to establish blooming.</u> | Absent Possible. Suitable habitat present, but not observed during protocol rare plant surveys in 2013. <u>No Reference populations to establish blooming.</u> | Possible. Suitable habitat present. |
| <i>Eschscholzia rhombipetala</i> diamond-petaled California poppy | --/--/1B.1 | Alkaline clay substrate in valley and foothill grassland. | Absent Possible. Suitable habitat present, but not observed during protocol rare plant surveys in 2013. <u>Not observed blooming at reference populations</u> | Absent Possible. Suitable habitat present, but not observed during protocol rare plant surveys in 2013. <u>Not observed blooming at reference populations.</u> | Possible. Suitable habitat is present. |
| <i>Gilia tenuiflora</i> ssp. <i>amplifaucalus</i> trumpet-throated gilia | --/--/4.3 | Sandy substrate in cismontane woodland and valley and foothill grassland. | Absent Possible. Marginally suitable habitat present, but not observed during protocol rare plant surveys in 2013. <u>Not observed blooming at reference populations</u> | Absent Possible. Marginally suitable habitat present, but not observed during protocol rare plant surveys in 2013. <u>Not observed blooming at reference populations</u> | Unlikely. Marginally suitable habitat is present. |



**Table 4.4-4
Special Status Species Known or with Potential to Occur Within the
Solar Generating Facility Area, Access Road, and Utility Corridor**

| Scientific Name Common Name | Status ^a Fed/State/ CRPR | Habitat Requirements | Potential for Occurrence within the Solar Generating Facility Area | Potential for Occurrence within the Access Road | Potential for Occurrence within the Utility Corridor |
|--|---|---|--|--|--|
| <i>Lagophylla diabloensis</i> ¹ [Formerly included in <i>L. dichotoma</i> , s.l.] forked Diablo Range hare-leaf | --/--/1B.24 | Known only from the Diablo Range. Sometimes clay substrate in cismontane woodland and valley and foothill grassland. | Absent. Suitable habitat present, but not observed during protocol rare plant surveys in 2013. Flowering/fruitlet confirmed at reference population. | Absent. Suitable habitat present, but not observed during protocol rare plant surveys in 2013. Flowering/fruitlet confirmed at reference population. | Possible. Suitable habitat present. |
| <i>Lepidium jaredii</i> ssp. <i>album</i> Panoche pepper-grass | --/--/1B.2 | White or grey clay lenses on steep slopes, clay and gypsum rich soils, in valley and foothill grassland. | Absent Possible. Limited suitable soil conditions present, but not observed during protocol rare plant surveys in 2013. <u>Not observed blooming at reference populations</u> | Absent Possible. Limited suitable soil conditions present, but not observed during protocol rare plant surveys in 2013. <u>Not observed blooming at reference populations</u> | Unlikely. Limited suitable soil conditions. |
| <i>Phrynosoma blainvillii</i> coast horned lizard | --/SSC/-- | Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial and abundant supply of ants and other insects. | Possible. Moderately suitable habitat present on the project site . There is a record for the species within 3 miles south of the project site. | Possible. Moderately suitable habitat present. There is a record for the species within 2 miles west of the Access Road. | Possible. Moderately suitable habitat present on the project site . There is a record for the species within 3 miles to the south. |

¹ In 2013, taxonomy of the genus *Lagophylla* was revised. *Lagophylla dichotoma* (sensu lato) was divided into two species. The newly narrow description of *L. dichotoma* (sensu stricto) applies to plants of the Sierra Nevada foothills and eastern Great Central Valley, and does not occur in Monterey County, while occurrences of the newly described *L. diabolensis* occur in the Diablo Range, in portions of Monterey, Fresno, and San Benito Counties (Baldwin 2013).



Special Status Birds discussion in Section 4.4.2(f) (Special Status Resources):

Special Status Birds. Six special status bird species were detected within the BSA: tricolored blackbird (*Agelaius tricolor*), golden eagle (*Aquila chrysaetos*), short-eared owl (*Asio flammeus*), burrowing owl (*Athene cunicularia*), bald eagle (*Haliaeetus leucocephalus*), and loggerhead shrike (*Lanius ludovicianus*). Another six special status bird species have the potential to occur on-site: grasshopper sparrow (*Ammodramus savannarum*), long-eared owl (*Asio otus*), mountain plover (*Charadrius montanus*), northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), and Oregon vesper sparrow (*Pooecetes gramineus affinis*). The Utility Corridor was added to the project description after the majority of avian surveys were completed. However, the potential for occurrence can be evaluated, and Table 4.4-4 identifies those special status avian species with potential to occur in the Utility Corridor.

Mountain Plover discussion in Section 4.4.2(f) (Special Status Resources):

Mountain Plover. Mountain plover do not breed in California; rather they migrate to the Central and Imperial valleys during the winter. There ~~are no~~ is one CNDDDB record for mountain plover, an approximate location recorded centered within 20 five miles of the BSA, but and small flocks have been reported in the Cholame Valley as close as four miles south of the project site (NAS and CLO, 2012). Most observations have been in agricultural lands 10 to 15 miles east of the BSA. No mountain plovers have been observed within the BSA, but suitable foraging habitat is present.

Oregon Vesper Sparrow discussion in Section 4.4.2(f) (Special Status Resources):

...While this subspecies has not been observed on-site, suitable wintering habitat is present within the Solar Generating Facility Area, project site and the Access Road, and Utility Corridor.

Special Status Mammals discussion in Section 4.4.2(f) (Special Status Resources):

Special Status Mammals. Two special status mammal species were detected on-site: San Joaquin kit fox (*Vulpes macrotis mutica*) and American badger (*Taxidea taxus*). Another three special status mammals have the potential to occur on-site: Pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis californicus*), and San Joaquin pocket mouse (*Perognathus inornatus inornatus*). The Utility Corridor was added to the project description after the majority of mammal surveys were completed. However, the potential for occurrence can be evaluated, and Table 4.4-4 identifies those special status mammal species with potential to occur in the Utility Corridor.

San Joaquin Pocket Mouse discussion in Section 4.4.2(f) (Special Status Resources):

San Joaquin Pocket Mouse. The nearest CNDDDB record for San Joaquin pocket mouse is approximately 14 miles east of the BSA. Though none were detected within the Solar Generating Facility Area, the project site or Access Road, or Utility Corridor, San Joaquin pocket mice could occur where suitable friable soils are present in grasslands and blue oak woodlands.

Special Status Invertebrates discussion in Section 4.4.2(f) (Special Status Resources):

Special Status Invertebrates. Critical habitat for vernal pool fairy shrimp (*Branchinecta lynchi*) is located approximately 10 miles to the west of the BSA. Protocol vernal pool branchiopod surveys were conducted within the BSA, except in the Utility Corridor area which was not part of the project at the time of these surveys, to determine the presence or absence of listed vernal pool branchiopod species...

Wet-season protocol surveys were conducted within the BSA, except in the Utility Corridor area as noted above, during the 2012/2013 winter rainy season. Nine seasonal wetlands were sampled and no listed branchiopods were detected; however, the area received approximately 50% of the average precipitation recorded for the region containing the BSA. Please refer to the Wet-Season Branchiopod report in Appendix E.9 for more details.

Note that the Utility Corridor study area was added to the project after dry-season and wet-season sampling was completed; and, therefore, was not subject to vernal pool branchiopod surveys. However, the potential for occurrence can be evaluated, and Table 4.4-4 identifies those special status branchiopod species with potential to occur in the Utility Corridor.

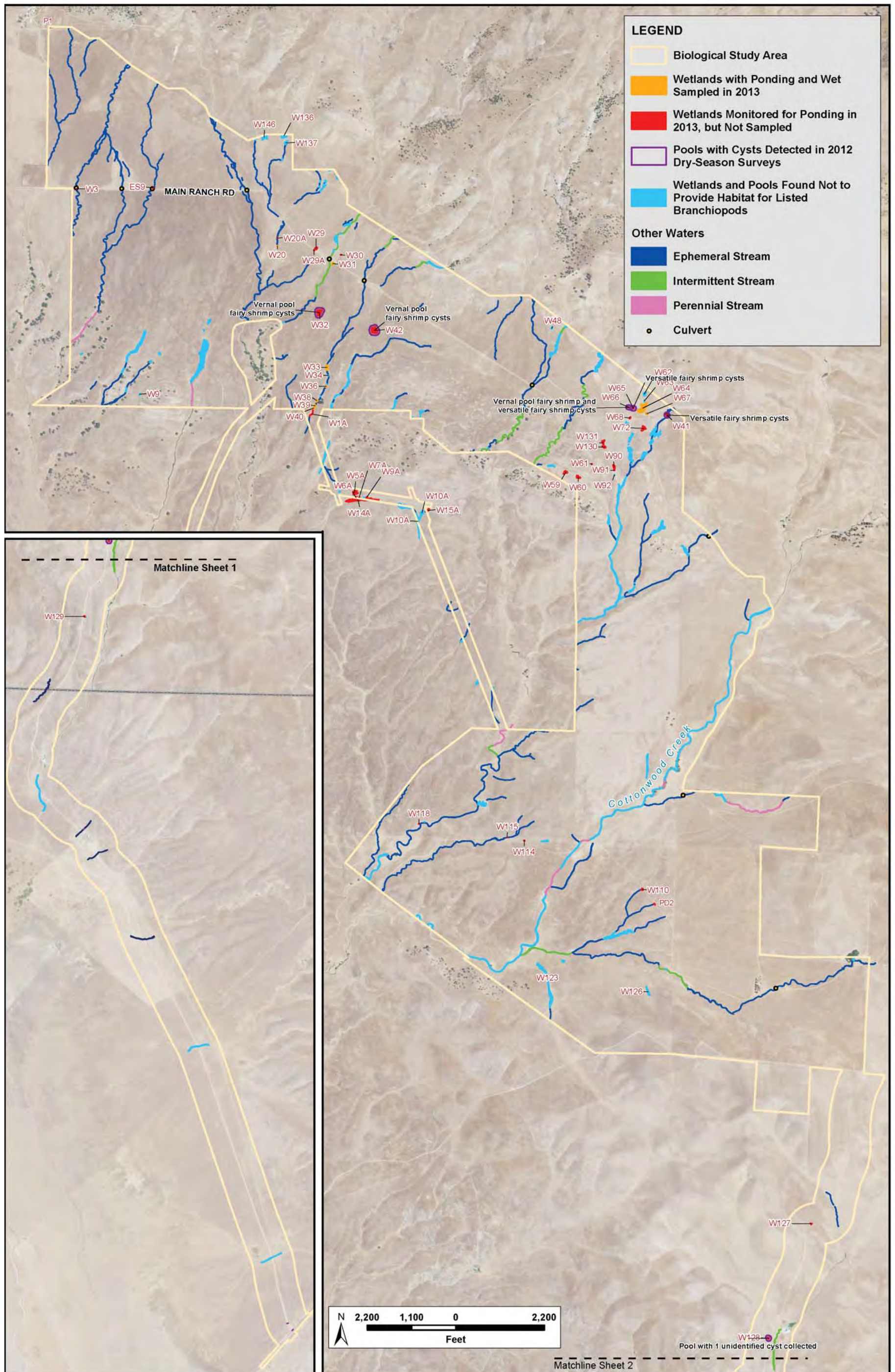
Pronghorn Antelope discussion in Section 4.4.2(f) (Special Status Resources):

Pronghorn Antelope. No pronghorn or their sign were detected within the ~~project site~~ SGFA during biological surveys conducted for the project, but they have been observed foraging within the Access Road (Biotic Report, HTH 2014b; DEIR Appendix E.1). Pronghorn have also been documented in the Cholame Valley on both sides of the Access Road and within the southern portion of the project site in previous reports (Penrod et al., 2010). A herd of approximately 40 to 50 pronghorn have been tracked by the CDFW within the Cholame Valley.

Figure 4.4-7; revisions shown on following page.

Fourth paragraph of Wildlife Movement Corridors discussion:

...The results of the full coverage den surveys, camera stations, and spotlight surveys collectively indicate that the relatively small, moderately suitable grassland habitat patches comprising the project site are rarely used by San Joaquin kit fox, and pronghorn and Tule elk have not been observed with the project site. Pronghorn have been observed in the access road area, and were previously reported from other sources as occurring in the southern portion of the project site. Given the remote location of the project site, the low level of development in the vicinity...



Vernal Pool Branchiopod
 Survey Coverage and Occupied Habitat

Source: Amy Sparks (H.T. Harvey & Associates) and First Solar, 2014

Table 4.4-5:

**Table 4.4-5
Special Status Plant Species Identified Within the BSA During 2013 Protocol Surveys.**

| Scientific Name Common Name | Status Fed/State/CRPR | Approximate Number of Individuals | |
|--------------------------------|--------------------------|-----------------------------------|----------------------------------|
| | | Project Site | BSA (Outside of Project Site) |

Special Status Plants subsection of Impact B-1:

Thresholds

CDFW standards state that species ranked 1A, 1B, 2A, and 2B may meet definitions of rare or endangered under CEQA Sections 15380 (b) and (d); (CDFW 2014). By CNPS standards, the plants of CRPR Ranks 1A, 1B, 2A and 2B meet the definitions of Sections 2062 and 2067 (CESA) of the California Fish and Game Code, and are eligible for state listing (CNPS 2014).

According to CDFW,

“In general, CNPS List 3 plants (plants about which more information is needed) and List 4 plants (plants of limited distribution) may not warrant consideration under CEQA §15380. These plants may be included on special status plant lists such as those developed by counties where they would be addressed under CEQA §15380... Factors such as regional rarity vs. statewide rarity should be considered in determining whether cumulative impacts to a List 4 plant are significant even if individual project impacts are not.”

CRPR 1B plant species meet CEQA Section 15380 criteria as rare, and impacts would be significant without compensatory mitigation. Mitigation is required for all impacts over 10 percent of the population within the BSA to avoid impacts that could cause the regional population of any of these species to drop below self-sustaining levels, threaten to eliminate any plant community of which the species was a key part; or substantially reduce the number of occurrences or individuals or restrict the range of that species.

Due to the unusual large number of individuals and extent of CRPR 4 plant species in the vicinity compared with other records for these species, these populations are considered unique, with implications for the status of this species throughout its range; these populations would thus meet criteria for analysis as rare under CEQA Section 15380. Due to the regional significance of these populations of CRPR 4 plant species, impacts to CRPR List 4 plant species would be considered significant and require compensatory mitigation if more than 30% of the population occurring within the BSA and/or known populations of the species within a 5-mile radius of the BSA (where such populations are known), would be affected. In addition, the impact may would be considered significant if less than 30% of the population or within the BSA would be affected but where the population exhibits unusual morphology, occurs on unusual substrates for that species, or if loss related to the project could reduce the species’ range, as determined by a qualified botanist familiar with the population present in the impact area and the rare flora of the Central Coast Ranges.



Indirect Impacts to California Condors discussion under Impact B-1:

Indirect Impacts to California Condor. Indirect impacts could include the long-term decline in population viability for California condors; ~~Since~~ ~~however,~~ no roosting or nesting habitat will be affected, and since the project site comprises only a very small area of foraging habitat relative to what is available in the region, no indirect impacts to California condors are expected.

Direct Impacts to Golden Eagles discussion under Impact B-1:

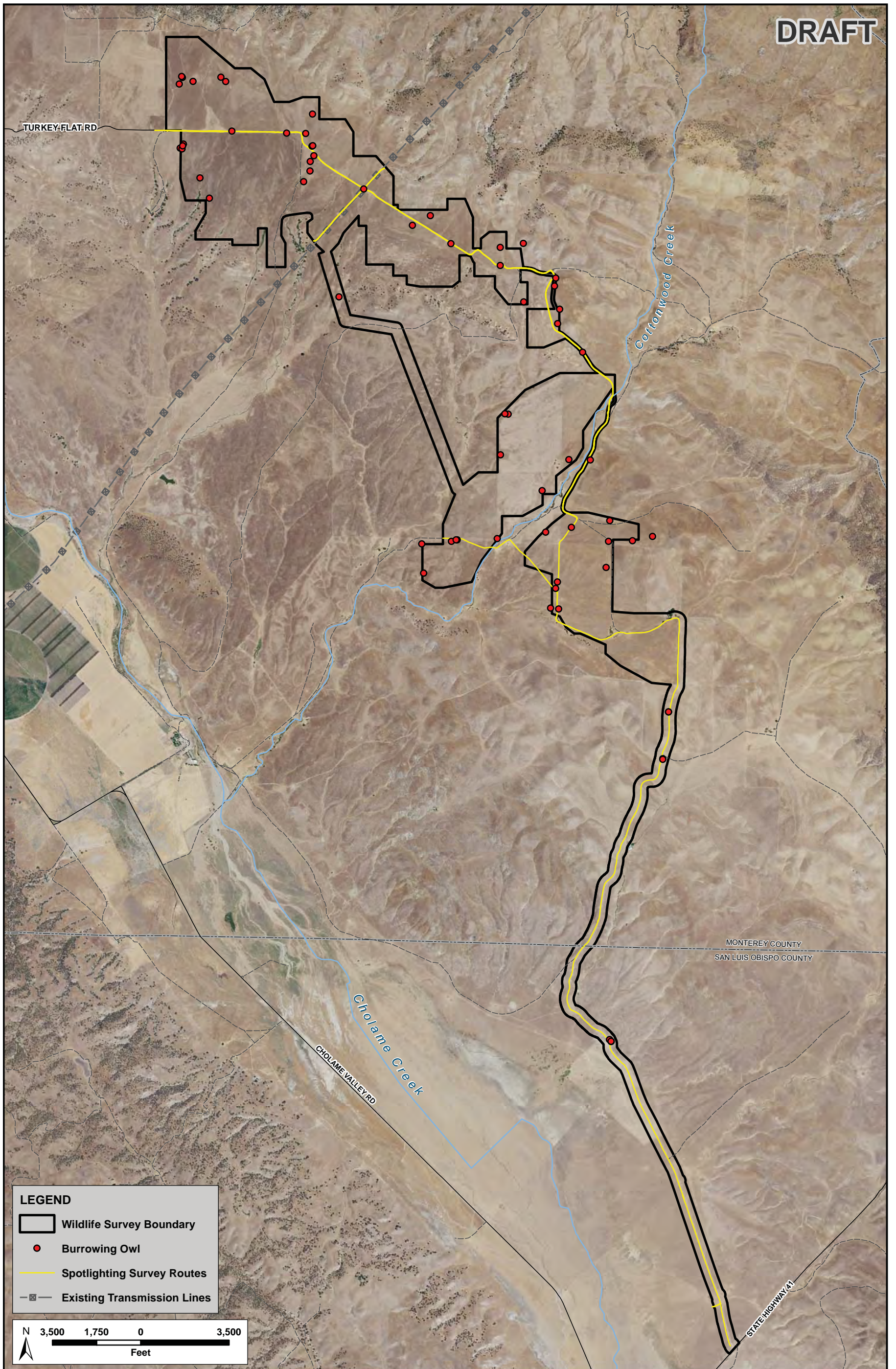
Direct Impacts to Golden Eagle. Direct impacts to golden eagles could include mortality or injury of individuals, as well as disruption of foraging and nesting behaviors and loss of foraging ~~and nesting~~ habitat, leading to reduced productivity and nestling survival...

Figure 4.4-8; revisions shown on the following page.

Raptors and Other Special Status Birds discussion under Impact B-1:

Raptors and Other Special Status Birds. The open grassland and riparian areas of the BSA and Utility Corridor study area provide suitable breeding and foraging habitat for a variety of native birds, including golden eagles, bald eagles, California condors, and burrowing owls, which are discussed above. The site also provides suitable foraging and/or breeding habitat for other special-status raptors and bird species, including Swainson's hawks, white-tailed kites, and northern harriers, short-eared owl, long-eared owl, loggerhead shrike, tricolored blackbird, mountain plover, Oregon vesper sparrow (wintering only), and grasshopper sparrow, as well as several CDFW Watch List species including Cooper's hawk, ferruginous hawk, horned lark, prairie falcon, Lewis's woodpecker, yellow-billed magpie, and Lawrence's goldfinch. Many other native bird species that are protected under state and federal law during nesting could occur and nest on-site. Based on the condition of the site and observations of avian activity in 2012 and 2013, there is a high likelihood of birds nesting within the project site.

DRAFT



Burrowing Owl Survey Data

Source: Amy Sparks (H.T. Harvey & Associates) and First Solar, 2014

Figure 4.4-8
County of Monterey

Last paragraph of the *Raptors and Other Special Status Birds* discussion under Impact B-1:

Solar facilities also present risk for bird collisions with solar panels. Birds migrating at night or moving between the perennial and ephemeral streams on the project site or the adjacent stock ponds would also be at an increased risk of collision with the solar panels as the panels might be mistaken for open sky or water. Based on the known distribution of the species in the project area, observations made during surveys, and fatality results emerging from other solar sites in California (Western EcoSystems Technology, Inc. 2014), some collision mortality is anticipated to occur. Applicant Proposed Measure (APM) 10 is proposed to monitor avian use of the site, conduct post-construction avian mortality monitoring, and identify conservation measures to minimize impacts. These efforts would be memorialized in a Bird and Bat Conservation Strategy (BBCS) prepared in collaboration with USFWS and would include an Avian Mortality Monitoring Program (AMMP) to monitor operational effects of the project on avian species. The development of a BBCS would further reduce potential operational impacts to avian species by providing additional data and additional conservation measures in response to that data.

Table 4.4-7:

**Table 4.4-7
 Impact Acreages for Upland Habitat within Four Distance Intervals from
 Potential California Tiger Salamander Breeding Ponds***

| Distance from Breeding Pond | Solar Generating Facility Area | | | Access Road | | | Utility Corridor | | |
|-----------------------------|--------------------------------|--------|--------|-------------|-------|-------|------------------|------|-------|
| | Temp | Perm | Total | Temp | Perm | Total | Temp | Perm | Total |
| 0 – 1,844 feet | 24.34 | 61.54 | 885.88 | 14.14 | 8.5 | 22.64 | 2.4 | 0.2 | 2.6 |
| 1,844 – 4,925 feet | 83.25 | 659.32 | 742.57 | 21.72 | 12.11 | 33.83 | 3.5 | 0.3 | 3.8 |
| 4,925 – 6,125 feet | 72.07 | 314.77 | 386.84 | 1.39 | 0.83 | 2.22 | 0.8 | 0.1 | 0.9 |

Fourth paragraph under *California Red-legged Frog* in Impact B-1:

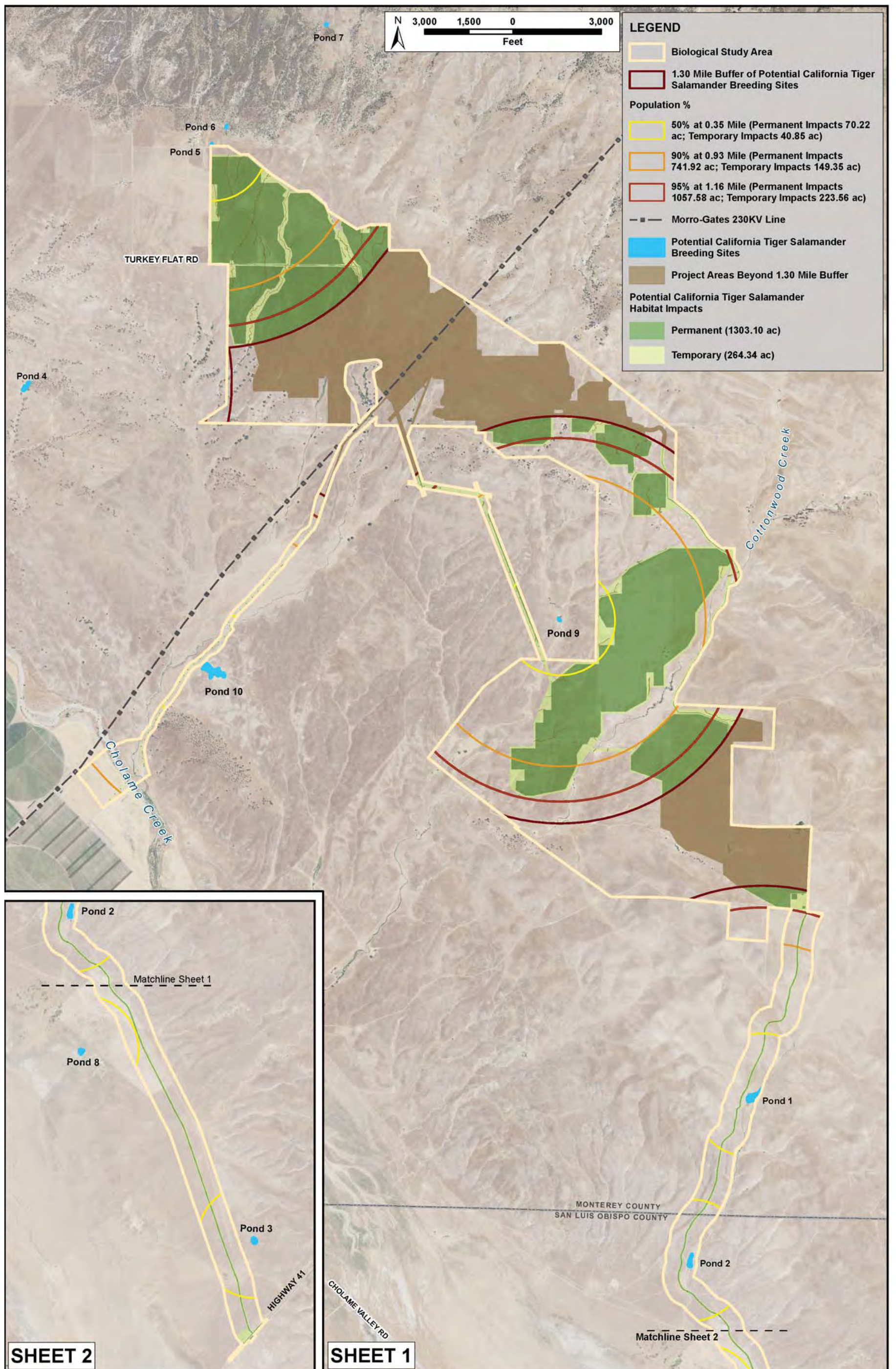
...Any permanent or temporary areas of impact within these polygons were identified, and acreages were calculated as impacts to California red-legged frog upland dispersal habitat. ~~However, those areas of the SDAs not permanently impacted (e.g., grassland habitat beneath the solar arrays) will be available for CRLF use after construction. Although considered permanently impacted for the purposes of analysis mitigation, grassland habitat beneath the solar arrays is expected to be available for CRLF use after construction.~~

Figures 4.4-9 through 4.4-11; revisions shown on the following pages.



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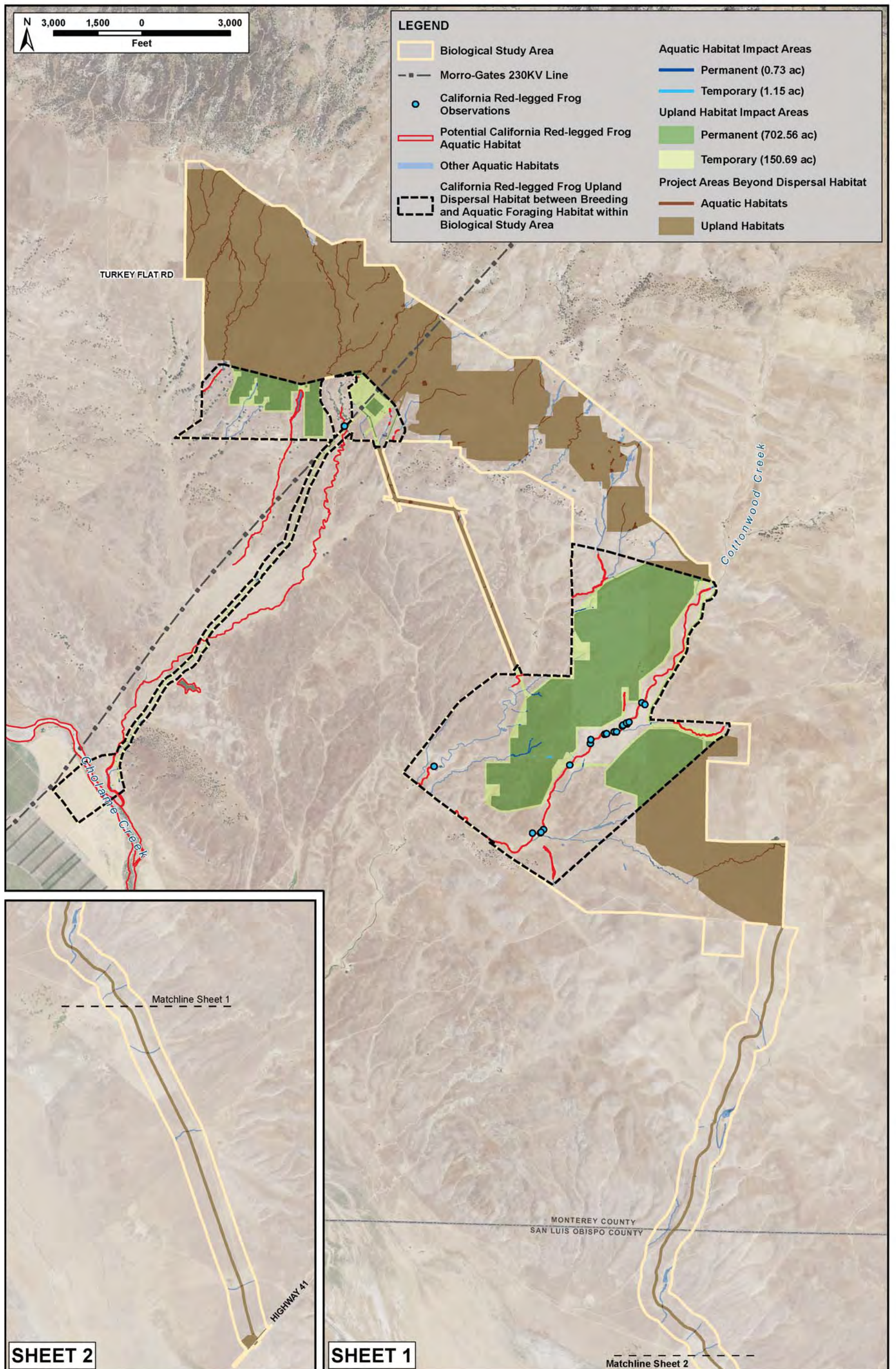




Potential California Tiger Salamander Habitat Impacts

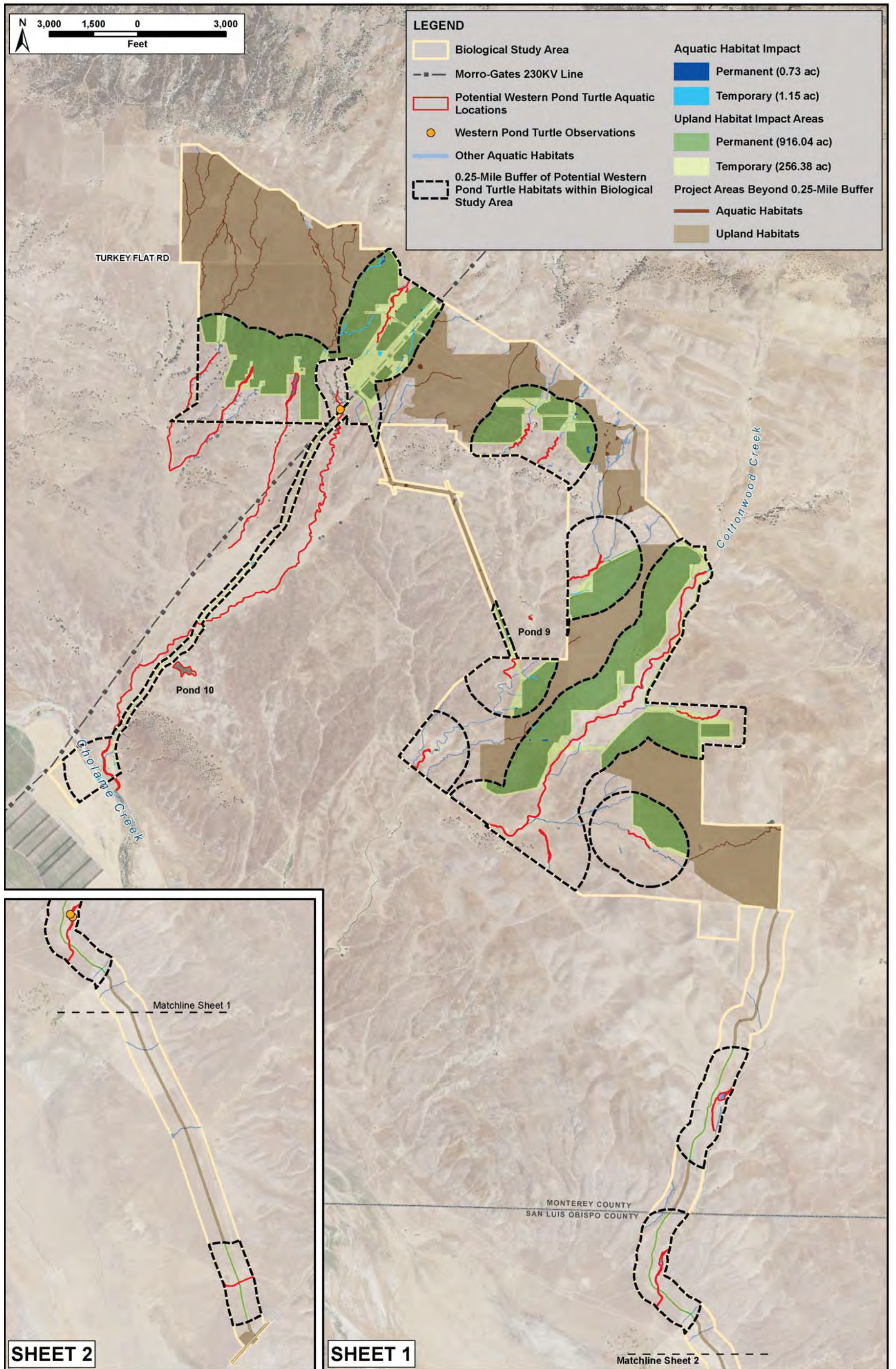
Figure 4.4-9
 County of Monterey

Source: Amy Sparks (H.T. Harvey & Associates) and First Solar, 2014



Potential California Red-legged Frog Habitat Impacts

Source: Amy Sparks (H.T. Harvey & Associates) and First Solar, 2014



Western Pond Turtle
 Habitat and Impacts

Source: Amy Sparks (H.T. Harvey & Associates) and First Solar, 2014

Indirect Impacts to California Red-legged Frog discussion under Impact B-1:

Indirect Impacts to California Red-Legged Frog. Indirect impacts to CRLF could occur due to sedimentation of aquatic habitats or changes in water quality. Other indirect impacts may include changes to predation pressure or prey populations in upland dispersal habitat due to facility maintenance and management which may result in a potential for include the long-term decline in population viability within the project site over the life of the project.

Impact Significant for California Red-Legged Frog discussion under Impact B-1:

Impact Significant for California Red-Legged Frog. Because of the regional rarity of this species, potential increased mortality of CRLF and degradation and loss of their ~~breeding~~ and non-breeding aquatic habitats and upland dispersal habitats would be considered Class II, significant but mitigable.

Indirect Impacts to Western Pond Turtle discussion under Impact B-1:

Indirect Impacts to Western Pond Turtle. Indirect Impacts to western pond turtles could occur due to sedimentation of aquatic habitats or changes in water quality. Other indirect impacts may include changes to predation pressure or prey populations in upland dispersal habitat due to facility maintenance and management which may result in a potential for include long-term decline in population viability within the project site over the life of the project.

Western Spadefoot, San Joaquin Coachwhip, and Coast Horned Lizard discussion under Impact B-1:

Western Spadefoot, San Joaquin Coachwhip, and Coast Horned Lizard. San Joaquin coachwhip has been observed in the project impact area, and western spadefoot and coast horned lizard have the potential to occur within the Solar Generating Facility Area, ~~and~~ along the Access Road and within the utility corridor. Up to 2,089 acres of upland habitat could be permanently affected, although this includes grassland habitat under the solar arrays that could be used by these species during the operational phase of the project;...

Indirect Impacts to Western Spadefoot, San Joaquin Coachwhip, and Coast horned lizard discussion in Impact B-1:

Indirect Impacts to Western Spadefoot, San Joaquin Coachwhip, and Coast horned lizard. Indirect impacts to western spadefoot, San Joaquin coachwhip and coast horned lizard could potentially occur due to increased predation pressure, facilitated by the installation of structures that can be used as raptor perches and lighting that illuminates nocturnal species. Human activities could result in the introduction of non-native ant species that displace native ant species, which are the primary prey of coast horned lizards. Indirect impacts on western spadefoot could occur if surface flows are disrupted such that they affect wetland hydrology or ponding. Erosion and sedimentation from construction could affect the water quality of western spadefoot breeding pools. As a

result there may be ~~include~~ a potential long-term decline in population viability of these species within the project site over the life of the project. ~~Increased predatory pressure due to the availability of addition raptor perches would also be an indirect impact to these species.~~

Mitigation Measure B-1(a):

B-1(a) Nested Compensatory Mitigation. The applicant shall provide conservation easements or funds for acquisition of conservation easements as compensatory mitigation to offset impacts to vegetative communities and listed or special status plants and wildlife. The compensatory mitigation shall incorporate the conditions specified in incidental take permits that could be issued by CDFW and USFWS for this project, but shall meet the minimum standards specified in this measure. Compensatory mitigation shall be provided at a ratio of not less than those specified in mitigation measures B-1(e), B-1(j), B-1(n), B-1(v), B-1(z), and B-1(cc). Compensatory mitigation for multiple species may be combined to mitigate for impacts to multiple species simultaneously (i.e. nested compensatory mitigation). Areas proposed for preservation and serving as compensatory mitigation for special status plant species impacts must contain verified extant populations of the special status plant species that would be impacted by the project. Areas proposed for preservation and serving as compensatory mitigation for special status wildlife species impacts must contain habitat value and function consistent with the conditions necessary to support viable populations of the special status species for which impacts are being mitigated (i.e. suitable vegetation communities, suitable breeding and nesting habitat and microhabitat conditions, including appropriate aquatic habitat for impacts to aquatic species or disturbances to aquatic habitat). Preservation lands must also be within known species ranges and known occurrences of local populations of the species for which impacts are being mitigated. Compensatory mitigation areas shall have a restrictive covenant prohibiting future development/disturbance and shall be managed in perpetuity to encourage persistence and enhancement of the preserved target species. Compensatory mitigation lands cannot be located on land that is currently held publicly for resource protection. The compensatory mitigation areas shall be managed by a conservation lands management entity or other qualified easement holder...

Mitigation Timing discussion of Mitigation Measure B-1(a):

Mitigation Timing: The applicant shall calculate the total acreages required to meet all compensatory mitigation obligations and submit these totals to the County prior to the issuance of grading permits. The applicant shall then obtain County approval of the location of mitigation lands, the holder of conservation easements, and the restrictions contained in the easement(s) created for the permanent protection of these lands. Documentation of recorded easement(s) shall be submitted to and approved by the County prior to the first of the project's final inspections, or within ~~12~~ 18 months after issuance of grading permits, whichever comes first. Verification of having met habitat mitigation requirements shall be reviewed and approved prior to final inspection.

Items 8 and 9 in Mitigation Measure B-1(b):

8. a contingency plan for mitigation elements that do not meet performance or final success criteria within described periods; the plan shall include specific triggers for remediation if performance criteria are not met and a description of the process by which remediation of problems with the mitigation site (e.g., presence of noxious weeds) shall occur; this contingency plan shall identify associated follow-up monitoring needs beyond the initial three years post-construction if remedial actions are required;
9. a requirement that the applicant shall be responsible for monitoring, as specified in the HMMP, for at least three years post-construction or until success of the compensatory lands (especially enhanced habitats) as described in the HMMP can be shown; during this period, regular reporting shall be provided to the County;

Mitigation Measure B-1(d):

B-1(d)

Special Status Plant Species Avoidance and Minimization. Federally- and state-listed plant species were not identified during 2013 protocol survey; however, if they are identified during future survey efforts within the project site, as conducted under B-1(a), complete avoidance shall be required. The project Proponent shall, in consultation with a qualified plant ecologist, design, construct, and operate the project to completely avoid



impacts to all populations of California jewelflower and San Joaquin woollythreads within the project impact area or within 50 feet of the project impact area. Impacts to all other (CRPR 1B and 4) special status plant species shall be avoided or minimized to the greatest extent feasible.

All known special status plant populations present within the limits of disturbance, or within 100 feet of the limits of disturbance shall be clearly depicted on Project plan sets. Prior to ground disturbance or vegetation removal in areas where special-status plant populations are to be avoided, the limits of work shall be visibly delineated with highly visible orange construction fencing or flagging. Visible delineation markers shall be required where special status plants to be avoided occur within 50 feet of general Project construction access areas and array installation, or within 100 feet of grading. The avoidance buffers shall be designated Environmentally Sensitive Areas (ESAs) and shall also be shown on Project plan sets. No equipment, vehicles, or personnel are permitted within ESAs without clear permission from a qualified biologist. All ESA fencing shall be maintained intact and in good condition throughout the duration of construction.

Mitigation Measure B B-1(e):

- B-1(e)** **Compensatory Mitigation for Special Status Plant Species.** Where direct impacts to special status plants cannot be avoided through redesign of project elements, ~~To~~ compensate for significant impacts on special status plant species, offsite habitat occupied by the affected species shall be preserved and managed in perpetuity at a minimum 1:1 mitigation ratio (at least one plant preserved for each plant affected, and also at least one occupied acres preserved for each occupied acres affected) up to the significance threshold, that is more than 10% of the BSA population for CRPR 1B species, or more than 30% of the BSA population for CRPR 4 species. ~~(e.g.,~~ For example, for a CRP-ranked 1B species where 15% of the known BSA population ~~within 5 miles of the project impact area~~ is impacted, mitigation must be provided at 1:1 equivalent of 5% of that ~~regional~~ BSA population; for CRPR 4 species, all impacts beyond 30 percent of the known BSA population must be mitigated at a 1:1 ratio). Areas proposed for preservation and serving as compensatory mitigation for special status plant impacts must contain verified extant populations of the special status plant species, of similar

size and quality, and equal or greater density to the populations that would be impacted by the project, and should be consistent with the USFWS Recovery Plan for Upland Species of the San Joaquin Valley (USFWS 1998) if possible.

Preservation of offsite local populations within 5 miles of the project site would ensure that although the project could impact many individuals of CRPR 1B and 4 species, the project would not result in extirpation of these species from the region, and conserved populations would benefit long-term survival of these species statewide.

Locations of suitable mitigation sites must be identified within 5 miles of the BSA, and a technical report must be submitted demonstrating that the same species, approximate number of individuals, and same acreage of suitable habitat as would be impacted would be preserved. Suitable sites must have similar associate species, soils, and lack extensive populations of noxious weeds. Because populations of annual plants can fluctuate from year to year and are difficult to census over large areas, estimated population of the target species at mitigation sites may vary by up to 10 percent from impacted population estimates, provided calculations are based on population estimates conducted following 2009 CDFW-approved botanical survey protocol. The technical report must identify a species-by-species accounting of individuals and acreage impacted; locations, acreages, and individuals at each proposed mitigation site; botanical survey dates, personnel, mapping and population estimation techniques used to demonstrate site suitability as mitigation for special status plant impacts.

If possible, compensatory mitigation areas shall be located as close to the project site as feasible, but must also be protected from Project-related ground disturbance by a species- and impact-specific buffer developed by a qualified plant ecologist familiar with the project actions and with the habitats and plant species present on the project site. This buffer must take into account the following potential indirect impacts that could occur to the preserved populations:

1. potential shading, or alteration of existing light regimes, by nearby infrastructure;

2. potential for alteration of drainage patterns that could affect the hydrology of habitat occupied by the preserved population;
3. potential for overspray of herbicides used during site vegetation management; *and*,
4. potential for ongoing dust deposition on the preserved population, sufficient to coat foliage or reproductive structures and substantially interfere with photosynthesis or pollination.

Compensatory mitigation areas for special status plants can be combined with mitigation for multiple species as outlined in measure B-1(a) for nesting mitigation. Compensatory mitigation for special status plants shall be consistent with the conditions outlined in the above measure B-1(a), and be managed and monitored under the HMMP as outlined in the above measure B-1(b).

If sufficient acreage of suitable quality as previously discussed cannot be protected to conserve CRPR 1B species at a minimum one to one ratio for individuals and acreage impacted, and to conserve CRPR 4 species impacted beyond the 30% threshold, the deficit between available suitable mitigation sites and required mitigation numbers and acreage shall be made up through active restoration. A special status plant mitigation restoration plan will be prepared, if needed, to identify suitable locations, methods, and success criteria for special status plant mitigation through direct seeding and restoration of suitable unoccupied habitat. The plan must at a minimum require replacement through collection of seed and topsoil from impact sites, a monitoring and management component that outlines weed management and monitoring techniques, and success criteria that require successful establishment of the target species over the acreage and numbers impacted plants within five years.

If compensatory mitigation for special status plants will involve restoration, then the applicant shall scrape and collect topsoil and/or duff from impact areas that support rare plants, to be used in compensatory mitigation site restoration. Seed may also be collected from impact areas. Before project-related activities commence and once on-site special-status plants go to seed, areas of proposed site grading where special status plants have been recorded shall be scraped to collect the seeds and topsoil/duff for redistribution on compensatory lands. A qualified botanist

shall determine the most suitable locations for the topsoil/duff to be distributed on the compensatory lands, which may include but not be limited to creation of "wetland" depressions for those plants associated with wetlands, seeps, vernal pools or other mesic sites with clay soils, and determining correct soil types or topographic aspect to support each plant species. Scraping will not be conducted for soils in vernal pools that could contain federally listed invertebrates unless permitted to do so by the United States Fish and Wildlife Service (USFWS).

Sites used for restoration can be located on suitable habitat as outlined in measure B-1(a) for nested mitigation. Compensatory mitigation for special status plants shall be consistent with the conditions outlined in the above measure B-1(a), and be managed and monitored under the HMMP as outlined in the above measure B-1(b).

Mitigation Timing: A technical report as described above that identifies ~~Identification~~ of the total number of plants and acreage impacted and required for mitigation, sites identified for mitigation through conservation, and the special status plant restoration plan, if applicable, must be submitted to the eCounty prior to the issuance of grading permits or prior to the issuance of the grading permit for each phase of the project, should the project be phased. The applicant shall then obtain County approval of the restoration plan, if applicable, and the location of mitigation lands, the holder of conservation easements, and the restrictions contained in the easement(s) created for the permanent protection of these lands. All other timing shall be consistent with measure B-1(a).

Fourth paragraph of Mitigation Measure B-1(g):

If a potential den is located outside of the disturbance footprint but within 500 feet of ground disturbing activities (including staging areas), the dens shall be avoided by installation of highly visible orange construction fencing a minimum of 100 feet around the den, designating the area an ESA. If the den is to be completely enclosed by fencing, the fencing must be installed in a manner that allows badger to move through the fencing at will, as determined by a qualified biologist.

Second paragraph of Mitigation Measure B-1(i):

Dens with proper dimensions but no obvious sign will require further investigation. A remote motion-sensing camera will be deployed for at least ~~three~~ five (5) days to document whether the hole is being used by kit fox. If, after ~~three~~ five days, no kit foxes are detected and the hole has remained unchanged (no new tracks or excavations are observed), the den will be deemed unoccupied. The den will be considered occupied if a kit fox is photographed using the den frequently or if recent sign is found.

Item 7 in Mitigation Measure B-1(i):

7. All reductions to established restrictive buffer areas (i.e. changes in total area by reducing the radii of the buffer or modifying the circular shape of the buffer) or allowance of additional activities within the restrictive buffers based on specific circumstances (i.e. vegetation, topography, acclimation to existing conditions, or frequency, intensity, or duration of anthropogenic activities) must be authorized by an agency-approved kit fox biologist. Agency approval of the kit biologist must be provided in writing by the agencies after review of the biologist's resume. All authorized reductions to restrictive buffer areas must be reported in writing to the USFWS and CDFW per the requirements of the federal and/or state take authorizations if specified, or within 24 hours of implementing the change if not specified in the take authorization(s).

Mitigation Timing discussion of Mitigation Measure B-1(i):

Mitigation Timing: The applicant shall submit documentation to the County that either no occupied SJKF dens were recorded on the project site, or that appropriate avoidance measures have been implemented to ensure avoidance of occupied or active breeding dens prior to ~~issuance of grading permits~~ the start of active construction. If occupied dens cannot be avoided the applicant will provide documentation that an Incidental Take Permit has been issued by CDFW (CESA/CFGC Sections 2081(b) and 2081(c)) and a Biological Opinion has been issued by the USFWS (FESA Section 7)

Mitigation Timing discussion of Mitigation Measure B-1(j):

Mitigation Timing: Identification of the total acreage for mitigation of San Joaquin kit fox must be submitted to the county prior to the issuance of grading permits or prior to the issuance of the grading permit for each phase of the project, should the project be phased. All other timing shall be consistent with measure B-1(a).

Last sentence of Mitigation Measure B-1(k):

The removal and disposal shall be conducted by an individual in possession of appropriate federal and state permits, if any are required, including but not necessarily limited to a state scientific collection permit pursuant to Fish and Game Code Section 2081.

Mitigation Timing and Monitoring discussions of Mitigation Measure B-1(l):

Mitigation Timing: The applicant will contract for preconstruction burrowing owl surveys to be conducted prior to construction of the project and shall submit documentation to the County that surveys have been completed prior to the start of initial ground-disturbing activities. **Monitoring:** The County shall ensure that applicant is in compliance with all burrowing owl impact avoidance and minimization measures the surveys are completed prior to issuing grading permits.

Mitigation Measure B-1(m):

B-1(m)

Burrowing Owl Avoidance and Minimization Measures.

If suitable burrows for burrowing owls are found during preconstruction surveys on the project site; burrowing owl occupancy shall be determined through up to three additional focused surveys on potential burrows during the morning and/or evening survey windows as defined in the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012; Appendix B). If the burrows are determined to be unoccupied, they shall be hand excavated by a qualified biologist in the same manner as described under B-1(g).

If the presence of burrowing owls is confirmed, the following avoidance measures shall be implemented.

1. Occupied burrows shall not be disturbed during the nesting season (1 February through 31 August) unless



a qualified biologist verifies, through noninvasive methods, that either (1) ~~the birds have not begun egg-laying and incubation~~ burrow is not being used for breeding, (2) a previously active nest has failed and the burrow is no longer active ~~re-nesting is highly unlikely~~, or (3) all juveniles from the occupied burrow are foraging independently and capable of independent survival and the burrow is no longer an active nest burrow. Owls present after 1 February shall be assumed to be nesting unless evidence indicates otherwise. Nest-protection buffers described below shall remain in effect until 31 August or, based upon monitoring evidence, until the nest has failed or all juvenile owls are foraging independently as determined by a qualified biologist.

2. Site-specific, no-disturbance buffer zones shall be established and maintained between Project activities and occupied burrows, using the distances recommended in the CDFW guidelines (CDFG 2012; Appendix B):

| Time of Year | Level of Disturbance | | |
|------------------|----------------------|------------|------------|
| | Low | Med | High |
| April 1 – Aug 15 | 200 meters | 500 meters | 500 meters |
| Aug 16 – Oct 15 | 200 meters | 200 meters | 500 meters |
| Oct 16 – Mar 31 | 50 meters | 100 meters | 500 meters |

The appropriateness of using reduced buffer distances or burrow-specific buffer distances shall be established on a case-by-case basis by a qualified ornithologist ~~who may consult~~ in consultation with CDFW, and shall depend on existing conditions (e.g., vegetation/topographic screening and current disturbance regimes). If necessary, buffer distances shall be carefully reassessed and relaxed or modified, based on future development plans (e.g., increased or intensified construction activities), by a qualified biologist who may consult with CDFW. The buffer zones shall be clearly delineated by highly visible orange construction fencing, which shall be maintained in good condition through construction of project or until construction activities are no longer occurring in the vicinity of the burrow.

3. During the nonbreeding season (generally 1 September–31 January), a qualified biologist may passively relocate burrowing owls found within



construction areas. Prior to passively relocating burrowing owls, a Burrowing Owl Exclusion Plan shall be prepared by a qualified biologist in accordance with Appendix E of the *Staff Report on Burrowing Owl Mitigation* (CDFW, 2012). The Burrowing Owl Exclusion Plan shall be submitted for review and approval to the CDFW and County ~~for review and approved by the County~~ prior to implementation.

The biologist shall accomplish such relocations using one-way burrow doors installed and left in place for at least two nights; owls exiting their burrows will not be able to re-enter. Then, immediately before the start of construction activities, the biologists shall remove all doors and excavate the burrows to ensure that no animals are present the burrow. The excavated burrows shall then be backfilled. To prevent evicted owls from occupying other burrows in the impact area, the biologist shall, before eviction occurs, (1) install one-way doors and backfill all potentially suitable burrows within the impact area, and (2) install one-way doors in all suitable burrows located within approximately 50 feet of the active burrow, then remove them once the displaced owls have settled elsewhere. When temporary or permanent burrow-exclusion methods are implemented, the following steps shall be taken:

- a) Prior to excavation, a qualified biologist shall verify that evicted owls have access to multiple, unoccupied, alternative burrows, located nearby (within 250 feet) and outside of the projected disturbance zone. If no suitable alternative natural burrows are available for the owls, then, for each owl that is evicted, at least two artificial burrows shall be installed in suitable nearby habitat areas. Installation of any required artificial burrows preferably shall occur at least two to three weeks before the relevant evictions occur, to give the owls time to become familiar with the new burrow locations before being evicted. The artificial burrow design and installation shall be as described in the Example Components for Burrowing Owl Artificial Burrow and Exclusion Plans per Appendix E of the *Staff Report on Burrowing Owl Mitigation* (CDFW, 2012).
- b) Passive relocation of burrowing owls shall be limited in areas adjacent to Project activities that



have a sustained or low-level disturbance regime; this approach shall allow burrowing owls that are tolerant of Project activities to occupy quality, suitable nesting and refuge burrows. The use of passive relocation techniques in a given area shall be determined by a qualified biologist who may consult with CDFW, and shall depend on existing and future conditions (e.g., time of year, vegetation/topographic screening, and disturbance regimes).

Mitigation Measure B-1(p):

B-1(p) Wildlife-Friendly Fence Design. The fencing around the perimeter of the project site and SDAs shall be designed to allow passage by SJKF, American badger, and their prey species, by incorporating either standard deer fencing installed so that the larger openings occur at the bottom or chain link fencing with the bottom edge raised 5 to 7 inches above the ground for the entire length, to allow for unimpeded movement of SJKF and American badger through the site openings in the perimeter fence that are a minimum of 4-inch by 4-inch for SJKF, with additional 6-inch by 7-inch openings to allow permeability by American badgers. The opening should be located at least every 500 feet along the perimeter fence. Interior fencing may be designed such that it is installed four to five inches above ground.

Mitigation Timing: The Wildlife-friendly fence design plans shall be submitted by the applicant to the County, CDFW, and USFWS for review and approved by the County prior to issuance of grading permits.

Second paragraph of Mitigation Measure B-1(q):

If active maternity roosts or hibernacula are found, the structure or tree occupied by the roost shall be fully avoided and not removed or otherwise impacted by Project activities during the maternity season. A minimum 100-foot ESA avoidance buffer shall be demarcated by highly visible orange construction fencing around active maternity roosts. No construction equipment, vehicles, or personnel shall enter the ESA without clear permission from the qualified biologist. Reduced avoidance buffers can be established through consultation with CDFW. ESA fencing shall be maintained in good condition for the

duration of the maternity season. The roost shall be removed only after the maternity season has ended, and shall be removed under the direction of a qualified biologist.

Mitigation Timing discussion of Mitigation Measure B-1(q):

Mitigation Timing: The applicant shall submit documentation to the County that either no special status bats were recorded on the project site, or that appropriate avoidance measures have been implemented to ensure avoidance of impacts to special status bats prior to ~~issuance of grading permits~~ the start of construction activity.

Mitigation Measure B-1(r):

B-1(r) Preconstruction Surveys for Raptors and Other Special Status Bird Species. ~~Not less-more~~ Not more-than 30 days prior to initiation of construction activities (incl. mobilization, staging and ESA fence installation) during the breeding season (1 February to 15 September), a qualified biologist shall conduct preconstruction surveys for nesting raptors, ~~and~~ Not more-than 14 days prior to initiation of construction activities (incl. mobilization, staging and ESA fence installation) during the breeding season (1 February to 15 September), a qualified biologist shall conduct preconstruction surveys for nesting MBTA/state regulated birds. The survey for the presence of nesting raptors, including golden eagles, shall cover all areas within of the disturbance footprint plus a 1-mile buffer where access can be secured. The survey area for all other nesting bird species shall include the disturbance footprint plus a 300-foot buffer. The surveys shall be repeated during the breeding season for each subsequent year of construction to ensure that ongoing construction activities avoid impacts to nesting birds.

If active nests (nests with eggs or chicks) are located, the qualified biologist shall establish an appropriate avoidance buffer ranging from 50 to 300 feet based on the species biology and the current and anticipated disturbance levels occurring in vicinity of the nest, and 0.5 mile for fully protected and state-listed raptors (such as white-tailed kite, bald eagle and Swainson's hawk). The objective of the buffer shall be to reduce disturbance of nesting birds. All buffers shall be marked using high-visibility flagging or fencing, and, unless approved by the qualified biologist,

no construction activities shall be allowed within the buffers until the young have fledged from the nest or the nest fails.

For golden eagle nests identified during the preconstruction surveys, an avoidance buffer of up to one mile shall be established on a case-by-case basis in consultation with the USFWS, and shall depend on the existing conditions and disturbance regime, relevant landscape characteristics, and the nature, timing, and duration of the expected development disturbance. The buffer shall be established between 1 February and 31 August; however, buffers may be relaxed earlier than 31 August if a qualified ornithologist determines that a given nest has failed or that all surviving chicks have fledged.

Mitigation Timing: The applicant shall submit documentation to the County that either no raptors or other special status birds were recorded on the project site, or that appropriate avoidance measures have been implemented to ensure avoidance of impacts to raptors and other special status birds prior to issuance of grading permits the start of construction activity. If results of the preconstruction surveys for raptors or other special status birds identify any state listed or state fully protected species, a preconstruction survey report will also be provided to CDFW prior to the start of construction.

Monitoring: The County shall ensure that the applicant is in compliance with raptor and special status bird impacts avoidance and minimization measures.

Mitigation Timing discussion of Mitigation Measure B-1(s):

Mitigation Timing: The applicant shall submitted documentation to the County, that avian impact avoidance and minimization features have been incorporated into the project design prior to issuance of grading construction or electrical permits that incorporate the guidelines permits. Biological monitoring reports (see B-1[ee]) will include discussions of monitoring of vertical pipes and pilings and that these features were capped to ensure avoidance of impacts to avian species during construction. **Monitoring:** The County shall ensure that all avian impact avoidance and minimization design features have been included in project design by the applicant.

Mitigation Timing discussion of Mitigation Measure B-1(t):

Mitigation Timing: The applicant shall submit documentation to the County that no aquatic special status species were recorded on the project site, or that appropriate impact avoidance measures have been implemented to ensure avoidance of aquatic special status species prior to ~~issuance of grading permits~~ the start of construction activity.

Mitigation Timing discussion of Mitigation Measure B-1(u):

Mitigation Timing: The applicant shall submit preconstruction survey documentation to the County that no western spadefoot were recorded on the project site, or that appropriate avoidance measures have been implemented to ensure avoidance of impacts to western spadefoot prior to ~~issuance of grading permits~~ the start of construction activity. **Monitoring:** The County shall ensure that the applicant is in compliance with western spadefoot impact avoidance and minimization measures.

Mitigation Measure B-1(w):

B-1(w) California Tiger Salamander and California Red-Legged Frog Relocation Sites. Prior to the initiation of any other protective measures, a qualified biologist (i.e., biologist approved by USFWS and/or CDFW to translocate CTS and CRLF) shall, in consultation with USFWS and/or CDFW as applicable, identify appropriate relocation sites for any adult, juvenile, and larval CTS and CRLF that may be observed during the pre-construction survey or monitoring activities described below and need to be moved from within the limits of direct impact disturbance. Relocation or other take (e.g. entrapment) of CTS and CRLF can only be conducted by an authorized biologist and the project must have been issued the requisite take authorizations from CDFW and/or USFWS as applicable before any relocation activity can commence.

Mitigation Timing: The applicant shall submit to the County documentation that CDFW and/or USFWS approved relocation sites for CTS and CRLF have been identified prior to issuance of grading permits. **Monitoring:** The County shall ensure that CDFW- and USFWS-approved relocation sites have been identified by the applicant.



Second paragraph of Mitigation Measure B-1(y):

Preconstruction surveys shall be conducted for CRLF prior to initiation of construction activities, including mobilization and staging. All suitable aquatic habitat within the disturbance footprint plus 200 feet of adjacent upland habitat shall be surveyed. CRLF surveys shall consist of one nighttime survey and one daytime survey conducted by a qualified biologist within a 48-hour period before the onset of construction activities. If CRLF of any life stage are found, they shall be moved to the designated relocation sites identified under B-1(~~p~~w).

Mitigation Timing discussion of Mitigation Measure B-1(y):

Mitigation Timing: The applicant shall submit documentation to the County that no aquatic special status species were recorded on the project site, or that appropriate impact avoidance measures have been implemented to ensure avoidance of aquatic special status species prior to ~~issuance of grading permits~~ the start of construction activity.

Mitigation Timing discussion of Mitigation Measure B-1(z):

Mitigation Timing: Identification of the total acreage for mitigation for California red-legged frog must be submitted to the county prior to the issuance of grading permits, or prior to the issuance of the grading permit for each phase of the project, should the project be phased. All other timing shall be consistent with measure B-1(a).

Second paragraph of Mitigation Measure B-1(aa):

Within 0.35 mile of the identified suitable breeding habitat of the project site, where installation of a silt fence is not feasible, ground-disturbing construction activities shall be limited to the non-breeding season to the extent practicable, and nighttime construction activities shall be minimized during the breeding season. In particular, to minimize impacts to California tiger salamanders that are dispersing to and from breeding sites during the breeding season (October through March), ground-disturbing construction activities along the access road, utility corridor, and transmission line shall be limited to the non-breeding season, to the extent practicable...

Mitigation Timing discussion of Mitigation Measure B-1(bb):

Mitigation Timing: The applicant shall include details on special status animal species general avoidance measures and construction BMPs in biological monitoring status reports that are to be submitted to the County as outlined in B-1(~~uee~~).

Mitigation Timing discussion of Mitigation Measure B-1(cc):

Mitigation Timing: Identification of the total acreage for mitigation for California tiger salamander must be submitted to the county prior to the issuance of grading permits or prior to the issuance of the grading permit for each phase of the project, should the project be phased. All other timing shall be consistent with measure B-1(a).

Mitigation Timing discussion of Mitigation Measure B-1(ee):

Mitigation Timing: The applicant shall submit documentation to the County demonstrating that the applicant has contracted qualified biologists to conduct biological monitoring and that these biologists have been approved by CDFW and USFWS (as required) prior to issuance of a grading permit. The applicant shall also report results of daily biological monitoring activity to the County (through the Environmental Compliance Manager) on a monthly and annual basis through the preparation and submission of and prepare and submit monthly summary monitoring reports, and annual monitoring reports ~~to the County.~~ During construction, the annual written report shall describe the status of project construction, as well as the compliance and current implementation status of construction-related biological mitigation measures and general biological measures. The report shall be submitted to the County no later than 15 February of the following year.

Item 7 in Mitigation Measure B-1(ff):

7. To prevent entrapment of special-status wildlife, all excavations (e.g., steep-walled holes, or trenches) more than six inches deep shall be covered with plywood or similar materials when not in use or fitted with at least one escape ramp constructed of earth dirt fill, wooden planks, or another material that wildlife could ascend. During the month of May excavations and trenches two-foot deep or greater shall be covered with plywood or



similar materials when not in use, and any excavations or trenches that cannot be covered when not in use shall be monitored daily to prevent entrapment of pronghorn calves. All excavations more than six inches deep shall be inspected daily for entrapped wildlife before construction activities begin and once immediately before being covered with plywood. Before excavations are filled, they shall be thoroughly inspected for entrapped wildlife. Any wildlife discovered shall be allowed to escape unimpeded before field activities resume or shall be removed from excavated areas by a qualified biologist and released at a safe nearby location.

Item 19 of Mitigation Measure B-1(ff):

~~19. During construction, an annual written report shall be prepared describing the status of Project construction, as well as the compliance and current implementation status of construction related biological mitigation measures and general biological measures. The report shall be submitted to the County no later than 15 February the following year.~~

Mitigation Timing discussion of Mitigation Measure B-1(ff):

Mitigation Timing: The applicant shall include details on special status animal species general avoidance measures and construction BMPs in biological monitoring status reports that are to be submitted to the County as outlined in B-1(~~see~~).

Mixed Oak Woodland: Permanent Impacts discussion in Impact B-2:

...project activity could result in permanent impacts to up to 0.01 acres of oak woodland from potential linear.

Table 4.4-8; revisions shown on the following page.

Last paragraph of the *Riparian Habitat and Streams: Temporary Impacts* discussion in Impact B-2:

Temporary impacts may also be caused by frac-out events that could occur during directional drilling activity under stream and wetland features. If directional drilling work resulted in a frac-out, in which fracturing of the ground result in drilling fluid escaping to the surface, or water draining out of the wetland feature, this would result in direct, but temporary impacts to wetland features. If directional drilling is included in project construction activity, the applicant would be required to acquire a CDFW Streambed Alteration Agreement (SAA) for potential impacts to jurisdictional features in the event of a frac-out, and conditions of the SAA would be designed to address those potential impacts.



**Table 4.4-8
 Summary of Impacts on Natural Communities in the project Impact Area¹**

| Impacts (Acres) | | | | | | | | |
|--|---------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Habitat Types | Total Project Impact Area | | Access Road | | project site | | Utility Corridor | |
| | Permanent Impacts | Temporary Impacts | Permanent Impacts | Temporary Impacts | Permanent Impacts | Temporary Impacts | Permanent Impacts | Temporary Impacts |
| <u>Agricultural</u> | <u>0.06</u> | <u>0.63</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0.06</u> | <u>0.63</u> |
| <u>Alluvial Intermittent Stream</u> | <u>0</u> | <u>0.1</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0.0</u> | <u>0</u> | <u>0.1</u> |
| <u>Cottonwood Alluvial Riparian Woodland</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |



Perennial Stream Impacts discussion under Impact B-2:

Perennial Stream Impacts. A new ~~double box culvert~~ clear-span bridge is proposed for a crossing of Cottonwood Creek (a perennial stream that supports perennial marsh wetland vegetation [Figure 4.4-2b]) within the project site. Construction of this ~~culvert bridge, which would require rock slope protection on streambanks associated with bridge abutments,~~ would constitute a permanent impact to the stream in this location. However, due to the clear-span design, the stream channel bottom would remain a native mud-bottomed habitat. Temporary impacts would be caused by the access and activities, including localized dewatering, required to construct this crossing. The project would avoid the remainder of Cottonwood Creek. Elsewhere, perennial streams would be impacted by improvements to and widening of the existing access road and main ranch road. In these areas, pipe culverts large enough to handle storm flows to at least existing channel capacity and avoid scour, or channel downcutting, would be installed, along with associated erosion control measures, such as rock weirs and cross vanes, where necessary. Permanent impacts related to these improvements would be confined to the area affected by the wider road and culvert, as well as any erosion control improvements such as weirs. Temporary impacts would be restricted to the areas where construction access is needed to install the improvements.

Mitigation Measure B-2(a):

B-2(a) Valley Needlegrass Grassland and Wildflower Field Habitat Mitigation. The applicant shall mitigate permanent impacts to these habitats caused by grading, construction of new road surface, array construction, and structure and building placement by preserving and managing valley needlegrass grassland at a 2:1 mitigation ratio and wildflower field at a 1:1 mitigation ratio (mitigation area: impact area) for total acreages of these habitats as presented in Table 4.4-8.

This compensatory mitigation may be fulfilled in conjunction with other mitigation requirements, such as those for special status plant or animal species affected by the project and should be consistent with the conditions outlined in measure B-1(a), and shall be managed in accordance with the HMMP described in mitigation measure B-1(b).

Areas proposed for preservation and serving as compensatory mitigation for sensitive vegetation types must contain verified extant populations of the vegetation that would be impacted by the project. If existing floristic data has sufficient detail to classify and quantify wildflower fields to alliance level using currently accepted vegetation classification protocols outline in the Manual of California



Vegetation, 2nd Edition (Sawyer et al. 2009) and the CDFW VegCAMP program, this data may be used to determine alliances and acreages required for compensatory mitigation. To demonstrate consistent quality and composition between mitigation sites and impacted sites, baseline plot data must be collected. Data collection must follow an accepted vegetation sampling methodology for cover, species composition, and species richness, and plot size must be appropriate for the community sampled. Guidance on minimum plot size is provided in the CDFW/CNPS Vegetation Rapid Assessment Method. Compensatory mitigation sites for sensitive vegetation must have similar or better native species cover, comparable species richness and composition, and meet alliance classification membership rules of the alliance, if any, for which mitigation is intended. The total number of baseline and mitigation site plots required to demonstrate consistency shall be determined by a qualified ecologist skilled in design of vegetation field sampling studies.

Fourth paragraph of Mitigation Measure B-2(c):

The PVIMP shall be submitted to the County, CDFW, and USFWS prior to the notice to proceed, and shall address the entire project site. This submittal shall further describe the process by which the PVIMP shall be implemented (e.g., the entity responsible for implementing it, funding mechanisms, and reporting procedures). The PVIMP shall include, but is not limited to, the following...

Mitigation Measure B-2(f):

B-2(f)

Stream Channel Avoidance and Minimization. To prevent high-velocity water flow from causing bank downcutting at downstream locations, any improvements related to road realignment, widening, or the ability of the road to convey heavy equipment for construction shall be designed to ~~handle heavy storm flows (up to the 25-year flood event or more), such that undesirable velocities and channel destabilization downstream of the crossing shall be avoided~~ minimize alterations to natural flow patterns and capacity, consistent with the design-level drainage analysis.

~~...A single crossing, including a new double box culvert or freeclear-span bridge, shall be installed in over~~ Cottonwood Creek...



Mitigation Timing section of Mitigation Measure B-2(g):

Mitigation Timing. The Frac-out Plan shall be submitted by the applicant to the County, ~~CDFW, and USACE and approved by the County~~ for approval prior to issuance of grading permits.

Mitigation Measures B-3(b):

B-3(b) Well Placement Hydrology Study. To mitigate for potential impacts from groundwater pumping that may affect the active hydrology at New Well 1, the applicant shall contract a qualified hydrologist to perform a detailed, area-specific study for all newly proposed wells, prior to well construction. The Well Placement Hydrology Study (WPHS) shall determine the potential vulnerability and the expected effects of any new well (including calculated acreages of impacts), as well as the anticipated construction water demands on nearby wetlands and the downstream waters fed by such wetlands. To the extent feasible, all new wells shall be sited with sufficient setback from groundwater-fed wetlands such that temporary impacts to W19 and other wetlands shall be avoided or minimized. If a new well must be sited in an area where impacts to W19 or other wetlands cannot be ruled out (or limited to no more than one rainy season) by the hydrologic study, mitigation measure B-3(c) shall apply, and the applicant shall consult with CDFW, USACE and RWQCB, as applicable, to determine if permitting is required.

Mitigation Timing section of Mitigation Measures B-3(d):

Mitigation Timing: The applicant shall obtain County approval of the location of mitigation lands, the holder of conservation easements, and the restrictions contained in the easement(s) created for the permanent protection of these lands. Documentation of recorded easement(s) shall be submitted to and approved by the County consistent with the timing outlined in mitigation measure B-1(a). The applicant shall consult with CDFW on the requirement for a Lake and Streambed Alteration Agreement (LSAA; Fish and Game Code 1600) for waters subject to CDFW jurisdiction.



First paragraph under Impact B-4:

Penrod et al.'s (2010) regional corridor analysis identified three "target areas," or core areas identified as endpoints that connect core populations. In this instance, the endpoints identified are the Carrizo Plain (at the south end of the species' range) and three locations to the north. The three northern locations, which support stable populations of kit fox, are the Salinas River Watershed, the Palo Prieto/Cholame Valley, and Western Kern County (Antelope Valley) (see Figures 9 and 10, 12 and 13 in Appendix E.1). The project is located within the Palo Prieto/Cholame Valley target area.

Pronghorn Antelope Movement and Calving Grounds discussion under Impact B-4:

...Because construction is anticipated to occur for up to ~~24~~ 18 months, there is a high likelihood that pronghorn use along the Access Road and adjacent areas would be adversely affected...

Figure 4.4-12; revisions shown on following page.

Mitigation Timing section of Mitigation Measure B-4(b):

Mitigation Timing: The applicant shall submit documentation that to the County and CDFW that pronghorn-friendly fence design has been incorporated into the HMMP ~~prior to issuance of a grading permit~~ concurrently with submittal of the HMMP as noted in Measure B-1(b) (prior to the first of the project's final inspections, or within 12 months after issuance of grading permits, whichever comes first).

Section paragraph of Section 4.4.3(c) (Cumulative Impacts):

Geographic Extent. The geographic scope of this cumulative impact analysis includes the interior coats range within Monterey and San Luis Obispo Counties, including the Cholame Valley, Cholame Hills, Temblor Hills, Carrizzo Plain, and portions of the Diablo Range, which encompasses roughly 10,000 square miles...

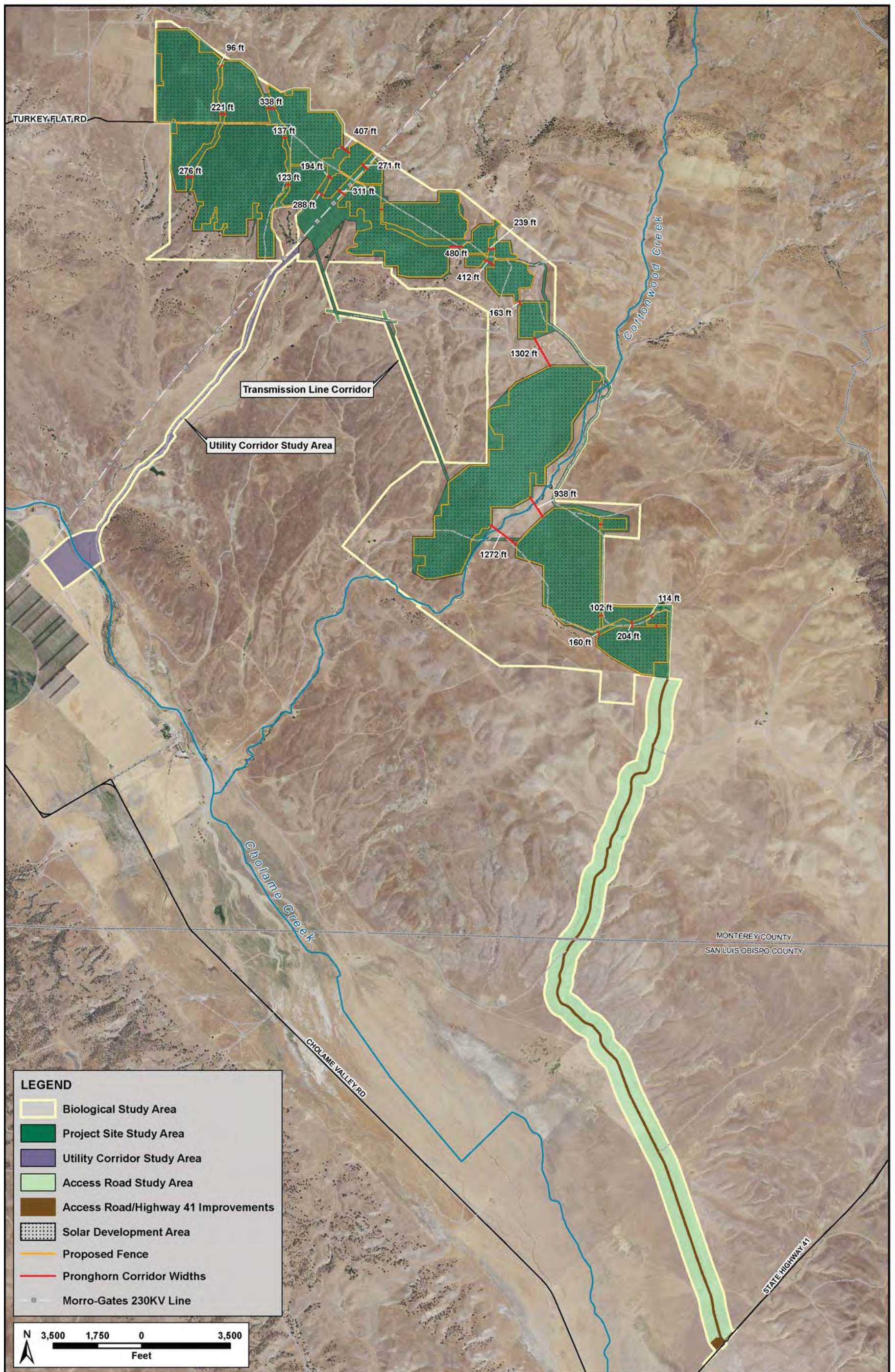
Fourth paragraph of Section 4.4.3(c) (Cumulative Impacts):

Proposed solar development within the Carrizzo Plain area combined with other solar development in the region (including the proposed project) does have the potential to result in cumulative impacts to sensitive species, especially high risk species such as the San Joaquin kit fox ~~and blunt-nosed leopard lizard~~, particularly if suitable mitigation were not employed to offset and mitigate potential impacts...



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Pronghorn Corridor Widths

Source: Amy Sparks (H.T. Harvey & Associates) and First Solar, 2014

Section 4.5 Cultural and Paleontological Resources

Table 4.5-1:

**Table 4.5-1
 Impact and Mitigation Summary: Cultural and Paleontological Resources**

| Impact | Mitigation Measures | Residual Impact |
|---|---|---|
| <p>Impact CR-1 Construction and decommissioning of the proposed project would involve surface excavation, which has the potential to unearth or adversely impact identified NRHP/CRHR-eligible prehistoric or historic archaeological resources. Impacts would be Class II, significant but mitigable. [Threshold 1]</p> | <p>CR-1(a) Archaeological Site Avoidance. Wherever feasible, direct impacts on NRHP/CRHR-eligible archaeological sites shall be avoided. Avoidance shall be accomplished by preventing any direct ground disturbance of the resource. <u>If impacts to all or any of these resources cannot be avoided, as determined by the applicant with concurrence from RMA – Planning, the boundaries of the NRHP/CRHR-eligible sites shall be marked in the field by a Registered Professional Archaeologist prior to ground disturbance with exclusionary fencing, lath, flagging tape, or some other combination of material that is highly visible, durable, and which construction and management personnel can recognize as marking an exclusion zone where no earth disturbance or other activity shall occur. If avoidance of any direct disturbance is deemed feasible by RMA – Planning based on the sensitivity of the resource relative to the severity of impact, the boundaries of the NRHP/CRHR-eligible sites shall be marked in the field by a Registered Professional Archaeologist prior to ground disturbance with exclusionary fencing, lath, flagging tape, or some other combination of material that is highly visible, durable, and which construction and management personnel can recognize as marking an exclusion zone where no earth disturbance or other activity shall occur.</u> Exclusion zones shall be inspected weekly by an archaeological monitor or other environmental inspector to ensure that they are being honored, remain effective, and in place. If complete avoidance is not feasible, mitigation measures CR-1(b) and CR-1(c) shall apply.</p> | <p>Implementation of Mitigation Measures CR-1(a) through CR-1(f) would reduce impacts to historic and archaeological cultural resources to a less than significant level.</p> |

Mitigation Measure CR-1(a):

CR-1(a) Archaeological Site Avoidance. Wherever feasible, direct impacts on NRHP/CRHR-eligible archaeological sites shall be avoided. Avoidance shall be accomplished by preventing any



direct ground disturbance of the resource. If impacts to all or any of these resources cannot be avoided, as determined by the applicant with concurrence from RMA – Planning Department, the boundaries of the NRHP/CRHR-eligible sites shall be marked in the field by a Registered Professional Archaeologist prior to ground disturbance with exclusionary fencing, lath, flagging tape, or some other combination of material that is highly visible, durable, and which construction and management personnel can recognize as marking an exclusion zone where no earth disturbance or other activity shall occur. ~~If avoidance of any direct disturbance is determined feasible by RMA – Planning based on the sensitivity of the resource relative to the severity of impact, the boundaries of the NRHP/CRHR-eligible sites shall be marked in the field by a Registered Professional Archaeologist prior to ground disturbance with exclusionary fencing, lath, flagging tape, or some other combination of material that is highly visible, durable, and which construction and management personnel can recognize as marking an exclusion zone where no earth disturbance or other activity shall occur.~~ Exclusion zones shall be inspected weekly by an archaeological monitor or other environmental inspector to ensure that they are being honored, remain effective, and in place. If complete avoidance is not feasible, Mitigation Measures CR-1(b) or CR-1(c) shall apply.

Section 4.6 Geology/Soils

Table 4.6-1 (note mitigation measure not shown in its entirety, as this text has not been revised):

**Table 4.6-1
 Impact and Mitigation Summary: Geology/Soils**

| Impact | Mitigation Measures | Significance After Mitigation |
|---|--|---|
| <p>Impact GEO-2 The solar development generating facility area is relatively flat and is subject to low levels of landslide potential. However, the utility corridor contains steeper slopes that may be subject to moderate landslide potential. In addition, the project site contains several deeply incised channels that are subject to moderate landslide potential. Landsliding has the potential to damage and destroy roadways, structures and other improvements as well as alter or block drainage channels, causing further damage and erosion. This is a Class II, significant but mitigable, impact. [Threshold 1]</p> | <p>GEO-2 Landslide Avoidance and Hazard Minimization.</p> | <p>Impacts would be less than significant after mitigation.</p> |



**Table 4.6-1
 Impact and Mitigation Summary: Geology/Soils**

| Impact | Mitigation Measures | Significance After Mitigation |
|--|--|---|
| <p>Impact GEO-3 Project construction, operation, and decommissioning could result in soil erosion or loss of topsoil. However, compliance with the NPDES <u>construction stormwater</u> program and implementation of measures promoting infiltration, as identified in a final, design-level drainage analysis, would minimize erosion. Impacts would be Class III, less than significant. [Threshold 2]</p> | <p>Compliance with Monterey County requirements for erosion control and grading would partially reduce impacts. In addition, compliance with recommendations in a required final, design-level drainage analysis, and compliance with the project's <u>construction SWPPP</u>, as described in Section 4.9, <i>Hydrology and Water Quality</i>, as well as proposed project <u>design features (i.e., APMs)</u>, would reduce erosion impacts to a less than significant level. No mitigation is required.</p> | <p>Impacts would be less than significant without mitigation.</p> |

Last paragraph on page 4.6-3:

The ~~solar development area~~ project site is located within the U.S. Geological Survey (USGS) Cholame Valley and Dark Hole quadrangles.

San Andreas Fault discussion in Section 4.6.2(b) (Geologic Hazards):

The proposed approximately 155-acre utility corridor would cross the San Andreas Fault, while the proposed solar ~~development~~ generating facility area would be located approximately two miles northeast of the fault trace.

Gold Hill Thrust Fault discussion in Section 4.6.2(b) (Geologic Hazards):

This fault is located approximately 0.25 miles southwest of the solar ~~development~~ generating facility area and would cross the proposed utility corridor.

Jack Ranch Fault discussion in Section 4.6.2(b) (Geologic Hazards):

This fault is located approximately 1.0 mile southwest of the solar ~~development~~ generating facility area and would cross the proposed utility corridor.

State discussion in Section 4.6.2(c) (Regulatory Setting):

The solar ~~development~~ generating facility area is located in a “low” liquefaction area, while portions of the proposed utility corridor and access road are located in a “moderate” liquefaction area [refer to Section 4.6(b) (*Land Subsidence and Liquefaction*)]. However, the entire project area is located in a “low” landslide hazard area according to Monterey County resource maps [refer to Section 4.6(b) (*Landslides*)].



First paragraph under Impact GEO-1:

The solar ~~development~~ generating facility area is located in a seismically active region and could be subject to fault rupture and strong seismic groundshaking during the project's design lifetime (anticipated to be 30 to 40 years). As shown in Figure 4.6-1, the proposed utility corridor would cross three fault lines, including the active San Andreas Fault and two inactive faults. It is thought that this particular section of the San Andreas Fault is likely to have a major earthquake in the next 30 years (2007 Working Group on California Earthquake Probabilities, 2008). ~~As such~~ The proposed project, due to its proximity to existing faults, the site is likely to experience significant surface rupture and groundshaking activity as a result of seismic activity along the San Andreas Fault during the life of the project. The proposed project would include the construction of PV modules, electrical transformers and other equipment, a transmission line, two substations, a switching station, security fencing, internal access roads, and an operations and maintenance (O&M) building, in addition to the utility corridor (which crosses a portion of that would cross the San Andreas Fault trace).

Second paragraph under Impact GEO-1:

Furthermore, the solar ~~development~~ generating facility area is located in an area mapped as having a low liquefaction potential, according to Exhibit 4.4.3 in the *Monterey County General Plan*.

Impact statement GEO-2:

Impact GEO-2 **The solar ~~development~~ generating facility area is relatively flat and is subject to low levels of landslide potential...**

Impact statement GEO-3:

Impact GEO-3 **Project construction, operation, and decommissioning could result in soil erosion or loss of topsoil. However, compliance with the NPDES construction stormwater program and implementation of measures promoting infiltration, as identified in a final, design-level drainage analysis, would minimize erosion. Impacts would be Class III, *less than significant*. [Threshold 2]**

Second paragraph under Impact GEO-3:

The operation of the project could also result in localized increases in erosion due to the introduction of new physical elements and impervious surfaces on the solar ~~development~~ generating facility area.



Fourth paragraph under Impact GEO-3:

Implementation of a NPDES-compliant construction Stormwater Pollution Prevention Plan (SWPPP), as required by the Clean Water Act...

Fifth paragraph under Impact GEO-3:

~~However, mitigation is required to reduce erosion impacts to a less than significant level.~~ As described in Section 2.0, Project Description, the project includes APM-1 to ensure that potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.

Mitigation Measure discussion under Impact GEO-3:

Mitigation Measures. Compliance with Monterey County requirements for erosion control and grading would partially reduce impacts. In addition, compliance with recommendations in a required final, design-level drainage analysis, and compliance with the project's construction SWPPP, as described in Section 4.9, *Hydrology and Water Quality*, as well as proposed project design features (i.e., APMs), would reduce erosion impacts to a less than significant level. No mitigation is required.

Section 4.7 Greenhouse Gas Emissions/Climate Change

Section 4.7.2(d) (Local Effects of Climate Change):

d. Local Effects of Climate Change. While the above discussion identifies the possible effects of climate change at a global and potentially statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy. In general, regional and local predictions are made based on downscaling statewide models (CalEPA, April 2010). The project site is located in an inland area, so while some of the above effects of climate change may apply to the proposed project, potential sea level rise would not affect the project site.

Property owners adjacent to the project site also have raised concerns about the potential of PV panels to cause local climate change by emitting radiant heat and raising the ambient temperature of surrounding areas. It should be noted that PV arrays are designed to maximize the absorption of solar radiation and its conversion to electricity and to minimize the loss of solar energy as heat to the atmosphere (Massachusetts Department of Energy Resources, et al., 2012). Furthermore, because solar panels are thin and light, they do not store a large amount of heat.

Although scientific research on this topic is limited, researchers at Columbia University and the Brookhaven National Laboratory have conducted detailed three-dimensional simulations of the effects of a large-scale solar power plant on the local microclimate (Fthenakis and Yu, n.d.). Using weather data provided by



First Solar from the 80 MW Sarnia Solar Power Plant in Ontario, Canada, the simulations showed that mean annual air temperatures in the center of a PV array, at a height of 2.5 meters, can reach up to 1.9 degrees Celsius above the ambient temperature; however, this thermal energy was found to completely dissipate at heights of 5 to 18 meters. Heat produced by the solar array also was found to dissipate with distance from the solar plant, with air temperatures within 0.3 degrees Celsius of the ambient temperature approximately 300 meters away from the facility's perimeter. Moreover, an analysis of 18 months of data showed that an increase in ambient temperature of surrounding areas was unlikely due to cooling of the solar array at night.

Fifth paragraph of Section 4.7.3(a) (Methodology and Significance Thresholds):

The MBUAPCD does not have a formal policy recommending any specific threshold for GHG emissions. The SLOAPCD has recommends using the adopted a SLOAPCD quantitative emissions threshold of 1,150 metric tons of carbon dioxide equivalent (MT CO₂E) per year for most land use projects. Therefore, the project's contribution to cumulative impacts related to GHG emissions and climate change would be cumulatively considerable if the project would produce more than 1,150 metric tons of CO₂E per year. In addition, a project that contributes to a net decrease in GHG emissions and is consistent with the reduction goals of AB 32 is presumed to have a less than significant GHG impact.

Operational GHG Analysis discussion in Impact GHG-1:

Operational GHG Analysis. The project would require a negligible amount of energy for security and monitoring systems during non-daylight hours. The project would not result in a substantial amount of mobile source GHG emissions, as the project would require a minimal amount of employees traveling to and from the site. In addition to these new sources of emissions, the project would introduce a non-fossil fuel-based energy source, which would have the indirect effect of displacing emissions otherwise occurring at natural gas and coal-fired power plants.² Based on the CCAR emissions factors (630 pounds of CO₂ per MWh minus 42 36 pounds of CO₂ per MWh to account for the life cycle CO₂ emissions for cadmium telluride [CdTe]) from fossil-fuel based power plants, the project would offset approximately 202,513 MT CO₂E emissions annually.

Last paragraph under Impact GHG-1:

However, based on current decommissioning practices, as a reasonable-worst case, GHG emissions generated during future decommissioning would be similar to GHG emissions generated during the construction phase of the proposed project. Therefore, the potential to add approximately 229 MT CO₂E per year during decommissioning would result in a slight decrease to the overall GHG emissions reduction benefit

² MBUAPCD staff stated that they did not believe that the project would directly offset emissions in the North Central Coast Air Basin (NCCAB), but that it could potentially offset emissions on a statewide level as older fossil fuel energy facilities are taken offline, including the Morro Bay facility, and that the project would provide a renewable source of energy production that would otherwise be provided by new fossil fuel-fired facilities (California Flats Solar Project Air Quality and Greenhouse Gas Assessment, August 2013).



attributable to the proposed project. It should also be noted that, as described in Section 2.0, Project Description, the project includes APM-1 to ensure that potential future environmental effects associated with project decommissioning – including GHG emissions – would be addressed at the time decommissioning is proposed consistent with regulations in effect at the time. Because the solar energy produced by the proposed project would off-set the GHG emissions generated by the facility, the project would result in a beneficial impact on GHG emissions and climate change.

Section 4.8 Hazards and Hazardous Materials

Table 4.8-1:

**Table 4.8-1
 Impact and Mitigation Summary: Hazards and Hazardous Materials**

| Impact | Mitigation Measures | Residual Impact |
|--|--|--|
| <p>Impact HAZ-5 Repowering or decommissioning of the proposed project could result in the improper disposal of hazardous waste, including used PV solar modules. Impacts related to the disposal of decommissioned PV solar modules would be Class II, significant but mitigable. [Thresholds 1, 2]</p> | <p>HAZ-5 Disposal of PV Modules and Support Structures. The applicant shall submit a recycling or disposal plan for PV modules and support structures for County review and approval, in order that project structures not pose a risk to human health or the environment after project repowering and/or decommissioning. The plan shall specify how these project components shall be <u>recycled or disposed of in a manner that will not pose a risk to human health or the environment, and the costs of such recycling or disposal.</u> Prior to grading or building permit issuance <u>operation</u>, the applicant shall post a long-term <u>decommissioning bond</u> to the County of Monterey, or other mutually acceptable financial obligation, in an amount consistent with these costs (plus County administrative costs) <u>consistent with the requirements of the Development Agreement (if approved), and which may also include any other project decommissioning obligations.</u></p> | <p>Implementation of the above mitigation measure would reduce impacts related to disposal of PV modules and support structures during decommissioning and/or repowering to a less than significant level.</p> |

Third to last paragraph under Impact HAZ-2:

...A developmental toxicology investigation specific to tellurium metal found no indications of unique developmental effects upon exposure of pregnant rats or rabbits to tellurium (Johnson et al., 1998; Putnam, 1996). CdTe appears to be less toxic than elemental cadmium in terms of acute exposure (Zayed and Philippe, 2009; Kaczmar, 2011), but the highly reactive oxidizing surface of CdTe can damage cell membranes, mitochondria, and cell nuclei depending on the technology used in quantum dot technology applications (Lovric et al., 2005), which is unrelated to the CdTe PV technology that may be used for the project.



Second paragraph under Impact HAZ-5:

As discussed in Section 2.0, *Project Description*, the proposed project includes APM-1 to ensure that all potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time. In addition, the project includes a conceptual decommissioning plan that describes the general types of measures that may be implemented at the time of decommissioning...

Mitigation Measure HAZ-5:

HAZ-5 Disposal of PV Modules and Support Structures. Prior to ~~construction permit issuance~~ operation, the applicant shall submit a recycling or disposal plan for PV modules ~~and support structures~~ for County review and approval, in order that project structures not pose a risk to human health or the environment after project repowering and/or decommissioning. The plan shall specify how these project components shall be recycled or disposed of in a manner that will not pose a risk to human health or the environment, and the costs of such recycling or disposal. Prior to ~~grading or building permit issuance~~ operation, the applicant shall post a long-term decommissioning bond to the County of Monterey, or other mutually acceptable financial obligation, in an amount consistent with these costs (plus County administrative costs) consistent with the requirements of the Development Agreement (if approved), ~~and which may also include any other project decommissioning obligations.~~

Third to last paragraph of Impact HAZ-2:

CdTe appears to be less toxic than elemental cadmium in terms of acute exposure (Zayed and Philippe, 2009; Kaczmar, 2011), but the highly reactive oxidizing surface of CdTe can damage cell membranes, mitochondria, and cell nuclei ~~depending on the technology used in quantum dot technology applications~~ (Lovric et al., 2005), which is unrelated to the CdTe PV technology that may be used for the project.

Section 4.9 Hydrology and Water Quality

Table 4.9-1:

**Table 4.9-1
 Impact and Mitigation Summary: Hydrology and Water Quality**

| Impact | Mitigation Measures | Residual Impact |
|--|--|---|
| Impact HYD-2 Construction or operation of the project could potentially result in the accidental release of hazardous materials that could degrade water quality. Impacts would be Class II, significant but mitigable. [Thresholds 1, 6] | HYD-2(a) Accidental Spill Control and Environmental Training. Prior to the issuance of any grading and/or building permit, the project proponent shall submit a Spill Response Plan and Spill Prevention, Control and Countermeasure Plan to the County | With implementation of the identified mitigation measures, impacts would be reduced to a less than significant level. |



**Table 4.9-1
 Impact and Mitigation Summary: Hydrology and Water Quality**

| Impact | Mitigation Measures | Residual Impact |
|--|--|--|
| | <p>of Monterey for review and approval. The Spill Response Plan (SRP) in combination with the Spill Prevention, Control and Countermeasure (SPCC) Plan to be prepared for the proposed project shall include procedures for quick and safe clean-up of accidental spills. The SRP and/or SPCC shall prescribe hazardous materials handling procedures for reducing the potential for a spill during construction, and shall include an emergency response program to ensure quick and safe clean-up of accidental spills. Additionally, an environmental training program shall be established to communicate environmental concerns and appropriate work practices, including spill prevention and response measures to all field personnel. A monitoring program shall be implemented to ensure that the plans are followed during all construction, operations, and maintenance activities. <u>The Hazardous Materials Response Plan (HMRP) proposed as part of the project [applicant proposed measure (APM) 6] shall incorporate all of the elements of this mitigation measure. The County of Monterey shall be responsible for reviewing the applicant's proposed HMRP to confirm that it incorporates the requirements of this mitigation measure.</u></p> <p>HYD-2(b) Maintain Vehicles and Equipment. All vehicles and equipment, including all hydraulic hoses, shall be maintained in good working order to minimize leaks that could escape the vehicle or contact the ground. A vehicle and equipment maintenance log shall be updated and provided by the applicant to the County of Monterey RMA – Planning Department on a monthly basis for the duration of project construction.</p> | |
| <p>Impact HYD-4 The proposed project could alter the existing drainage pattern of the project area, and would introduce impervious surfaces into an area that is currently undeveloped. The project may therefore increase runoff, potentially resulting in flooding or increased</p> | <p>The final design of the project would be required to be developed in accordance with a final, design level, drainage analysis which would include a detailed evaluation of the potential drainage impacts associated with the project, including identification of measures to reduce</p> | <p>Impacts would be less than significant.</p> |



**Table 4.9-1
 Impact and Mitigation Summary: Hydrology and Water Quality**

| Impact | Mitigation Measures | Residual Impact |
|--|--|---|
| erosion downstream. Impacts would be Class III, less than significant. [Thresholds 3, 4, 5] | runoff by promoting infiltration. As noted in the <i>Preliminary Drainage Report</i> (RBF, 2013), measures to reduce runoff by promoting infiltration would be selected and configured as part of this final design considering local impacts from proposed improvements, detailed grading plans and maintenance requirements. In addition, the proposed project would be required to comply with the NPDES program, including through preparation of a SWPPP and implementation of associated BMPs, as outlined in Impact HYD-1. Compliance with recommendations in the design level drainage analysis and existing regulations would reduce impacts related to increased erosion downstream to a less than significant level. No mitigation would be is required. | |
| Impact HYD-5 The project site contains numerous drainage channels, some of which contain flow depths and velocities that could expose proposed structures to potential flooding hazards. Impacts would be Class III, less than significant. [Threshold 9] | The applicant would be required to prepare a design level drainage analysis that would ensure both that proposed facilities avoid higher flow rates, and that any improvements within 50 feet from the top of bank of on-site drainages would comply with the requirements of Chapter 16.16 of the Monterey County Code. Compliance with the recommendations contained in the design level analysis would ensure that impacts are less than significant. No mitigation is required. | Impacts would be less than significant. |

Watersheds discussion in Section 4.9.2(a) (Regional Hydrology):

The waterbodies in the Cholame Creek Watershed are impaired ~~due to exceedance of~~with high levels of boron, chloride, fecal coliform, sodium, and ~~water quality objectives and United States Environmental Protection Agency (USEPA) recommended criteria for~~ *E. Coli*, low levels of dissolved oxygen, and electrical conductivity outside of levels supporting healthy fisheries (Hamilton, Personal Communication, October 28, 2014). Fecal coliform are shed by all warm-blooded animals including humans, pets, livestock, birds, and other wildlife...

Federal Clean Water Act discussion in Section 4.9.2(d) (Regulatory Setting):



The Central Coast RWQCB has established and certified ~~a~~ TMDLs for boron in streams of the Estrella River Basin, ~~which was approved by the Board in December 2013 and for fecal indicator bacteria in the Cholame Creek Watershed in May 2011 (CCRWQCB, 2014).~~

Second to last paragraph under Impact HYD-1:

Decommissioning would be required to comply with the standards in place at the time of decommissioning, which are anticipated to be similar or more stringent than the requirements currently placed on construction activities. In addition, as described in Section 2.0, Project Description, the project includes APM-1 to ensure that potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.

Mitigation Measure HYD-2(a):

HYD-2(a) Accidental Spill Control and Environmental Training. Prior to the issuance of any grading and/or building permit, the project proponent shall submit a Spill Response Plan and Spill Prevention, Control and Countermeasure Plan to the County of Monterey for review and approval. The Spill Response Plan (SRP) in combination with the Spill Prevention, Control and Countermeasure (SPCC) Plan to be prepared for the proposed project shall include procedures for quick and safe clean-up of accidental spills. The SRP and/or SPCC shall prescribe hazardous materials handling procedures for reducing the potential for a spill during construction, and shall include an emergency response program to ensure quick and safe clean-up of accidental spills. Additionally, an environmental training program shall be established to communicate environmental concerns and appropriate work practices, including spill prevention and response measures to all field personnel. A monitoring program shall be implemented to ensure that the plans are followed during all construction, operations, and maintenance activities. The Hazardous Materials Response Plan (HMRP) proposed as part of the project [applicant proposed measure (APM) 6] shall incorporate all of the elements of this mitigation measure. The County of Monterey shall be responsible for reviewing the applicant's proposed HMRP to confirm that it incorporates the requirements of this mitigation measure.

Mitigation Measure discussion under Impact HYD-4:

~~Mitigation Measures.~~ The final design of the project would be required to be developed in accordance with APM-11, in which the applicant shall prepare a final, design-level, drainage analysis which would include a detailed evaluation of the potential drainage impacts associated with the project, including identification of measures to reduce



runoff by promoting infiltration. As noted in the *Preliminary Drainage Report* (RBF, 2013) and in the *Preliminary Drainage Analysis Addendum* (Wallace Group, 2014), measures to reduce runoff by promoting infiltration would be selected and configured as part of this final design considering local impacts from proposed improvements, detailed grading plans and maintenance requirements. The design level drainage analysis would ensure that increases in peak runoff flow rates and volumes due to the addition of impervious surfaces such as isolated buildings are mitigated so that the post-project flow rates and volumes are no greater than pre-project flow rates and volumes for the 85th percentile storm event (NOAA Atlas 14) or a method acceptable by Monterey County and Regional Water Quality Control Board. In addition, the proposed project would be required to comply with the NPDES program, including through preparation of a SWPPP and implementation of associated BMPs, as outlined in Impact HYD-1. Compliance with recommendations in the design-level drainage analysis and existing regulations would ~~reduce result in~~ impacts related to increased erosion downstream that are to a less than significant level. No mitigation would be required.

Mitigation Measures. No mitigation is required.

First paragraph under Impact HYD-5:

The *California Flats Solar Project Preliminary Drainage Report* (RBF, 2013) included a preliminary hydraulic analysis to determine potential flood hazards relating to flow depths and velocities throughout the project site. The *Preliminary Drainage Analysis Addendum* (Wallace Group, 2014) provided additional review and recommendations regarding flood hazards, and included the private access road in the review...

Fourth paragraph under Impact HYD-5:

The proposed project would ~~be required to~~ implement APM-11, which requires the preparation of a design level drainage study that contains measures that ensure that project facilities are not placed in areas where they would be subject to significant flood or erosion hazards. Flood-risk and erosion avoidance measures outlined in APM-11 are generally consistent with the *Preliminary Drainage Report* (RBF 2013) and *Preliminary Drainage Analysis Addendum* (Wallace Group 2014), ~~comply with the recommendations in the *Preliminary Drainage Report* (RBF, 2013), and the final design of the project would be required to be developed in accordance with a final, design-level, drainage analysis. As outlined in the *Preliminary Drainage Report*, the final design-level drainage analysis and~~ would include the following requirements:

- No modules shall be placed in areas where the product of the flow depth and flow velocity is greater than 9 feet per second (corresponding to a hazard level 3, as defined in the *Preliminary Drainage Report*) during a 100-year, 24-hour storm event, based on the results of a design-level drainage analysis;
- No transformers, substations, or inverters shall be placed in areas where the flow depth exceeds 2 feet (corresponding to a hazard level

3, as defined in the *Preliminary Drainage Report*) during a 100-year, 24-hour storm event; ~~and~~

In addition, in accordance with the *Preliminary Drainage Report* (RBF 2013) and *Preliminary Drainage Analysis Addendum* (Wallace Group 2014), the final design level drainage analysis would include the following additional requirement:

- Solar modules, transformers, substations, or inverters constructed in areas where any inundation is expected to occur should be placed a minimum of 1 foot above the 100- year water surface elevation.

The Monterey County Water Resources Agency would review and approve the design-level drainage analysis. Implementation of the recommendations contained therein, ~~including the flood risk avoidance measures listed above,~~ would ensure that proposed facilities avoid significant flood or erosion hazards ~~higher flow rates~~.

... To ensure the improvements are consistent with the requirements of Chapter 16.16 of the Monterey County Code, the design-level drainage analysis prepared by the applicant in accordance with APM-11 and consistent with the requirements outlined in the *Preliminary Drainage Report* (RBF 2013) and *Preliminary Drainage Analysis Addendum* (Wallace Group 2014) described above- would be required to ~~address any development proposed within 50 feet from the top of the bank of on-site drainages and~~ prove, to the satisfaction of the Monterey County Water Resources Agency, that any improvements within 50 feet from the top of bank of on-site drainages would not result in significant flood- or erosion-related hazards, and that these improvements would not affect the existing capacity of the affected watercourse, as required by Chapter 16.16 of the Monterey County Code. Implementation of the recommendations contained in the design-level drainage analysis would ensure that impacts are less than significant. ~~the proposed development would be safe from flow-related hazards and would not significantly reduce the capacity of the existing watercourses. Upon compliance with the requirement so Chapter 16.16, impacts would be less than significant.~~

Mitigation Measures. ~~As noted above, the applicant would be required to prepare a design-level drainage analysis that would ensure both that proposed facilities avoid higher flow rates, and that any improvements within 50 feet from the top of bank of on-site drainages would comply with the requirements of Chapter 16.16 of the Monterey County Code. Compliance with the recommendations contained in the design-level analysis would ensure that impacts are less than significant. No mitigation is required.~~

First paragraph of the *Cumulative Impact Analysis*:

The proposed project would require up to ~~345 AFY~~ 494 acre-feet during construction and up to 5 AFY during operation.



Section 4.10 Land Use and Planning

First bullet in Section 4.10.2(b) (Project Site Setting) in Section 4.10, *Land Use and Planning*:

- *Farmlands (F)* designated zones are typically 40 acre minimum parcels and allow a range of uses to conserve and enhance the use of the important farmlands in the County while also providing opportunity to establish necessary support and ancillary facilities for those agricultural uses. The extent of use of land for this designation is limited to building coverage of 5% of the subject property, except for commercial greenhouse operations, which are permitted coverage of 50%. The County of Monterey has, however, determined that solar components (e.g., PV modules, inverters, and other related infrastructure) of ground-mounted facilities will not be counted as building site coverage. (Monterey County Director Interpretation, August 2012).

Second paragraph of the discussion for Policy LU-1.11 in Table 4.10-2:

...The County of Monterey previously determined that the solar components of ground-mounted facilities photovoltaic (PV) modules do not constitute buildings as defined in Title 21 and therefore are not subject to the building coverage requirements (Monterey County, August 2012)...

Discussion for Policy OS-5.3 in Table 4.10-2:

Potentially Consistent. As described in Section 4.4, *Biological Resources*, no critical habitat could/would be impacted by the proposed project. In addition, Mitigation Measures outlined in Section 4.4, Biological Resources, would be required to ensure conservation and maintenance of such areas, as well as to reduce potential impacts to protected wetlands. These measures would reduce any potential impacts to biological resources to less than significant levels and ensure consistency with this policy.

Discussion for Policy S-3.1 in Table 4.10-2:

...In addition, the proposed project would be required to comply with the construction stormwater NPDES program, including through preparation of a SWPPP and implementation of associated BMPs. Compliance with recommendations in the design-level drainage analysis and existing regulations would ensure consistency with this policy.

Section 4.11 Noise

First paragraph below Table 4.11-6:

...Due to hot weather, between June 1 and September 30, construction activities may begin as early as 5:00 AM and continue to 9:00 PM, Monday through Friday. A limited amount of construction work on the weekends may be required, depending on project scheduling, equipment and material delivery schedules, and other logistical considerations. In addition, Some nighttime construction may be required to finish construction activities that cannot be readily stopped at the end of the regular construction day or to maintain the construction schedule...

Last paragraph under Impact N-1:

Similar to the noise generated during construction of the proposed project, decommissioning activities would be conducted in accordance with all applicable



requirements in effect at the time of project termination. As described in Section 2.0, Project Description, the project includes APM-1 to ensure that potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time. A final decommissioning plan, based on then-current technology, site conditions, and regulations, would be prepared prior to actual decommissioning. Therefore, decommissioning of the project would result in less than significant noise impacts.

First paragraph under Impact N-2:

Construction activity at these sites may result in noise associated with equipment loading and off-loading and vehicle trips; however, no sensitive noise receptors are located within one mile of these locations. The proposed 38-acre laydown area is located approximately five miles southeast of the nearest sensitive receptors, and no sensitive receptors are located in close proximity to the proposed staging areas located at the project entrance. Therefore construction activity associated with the proposed laydown areas would not result in a significant noise impact.

Last paragraph under Impact N-2 in Section 4.11, *Noise*:

In addition, as described in Impact N-1, project decommissioning activities would be generally similar to project construction and be completed in 12 to 24 months. Assuming that the facility would be torn down and the materials present recycled or disposed, temporary traffic noise associated with such actions are assumed to be generally similar to the noise levels that would occur during project construction. In addition, as described in Section 2.0, Project Description, the project includes APM-1 to ensure that potential environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time. ~~Therefore,~~ decommissioning of the project would result in less than significant transportation noise impacts.

Section 4.12 Public Services

All references to “Cal Fire” and “Cal-Fire” are changed to “CAL FIRE.”

Table 4.12-1:

**Table 4.12-1
 Impact and Mitigation Summary: Public Services**

| Impact | Mitigation Measures | Residual Impact |
|---|--|--|
| Impact PS-1 The proposed project would substantially increase activity temporarily during construction and incrementally increase demand during operation at a site located in a relatively undeveloped area of the County. Emergency access for fire or emergency medical services may be insufficient and estimated response | PS-1(a) Construction Management Plan. The applicant shall include measures that reduce the demand for fire protection services during project construction in the final Construction Management Plan subject to the review and approval of Cal Fire CAL FIRE or the Fire Protection District as applicable. | Compliance with existing County ordinances and implementation of Mitigation Measures PS-1(a) through PS-1(c) would reduce potential impacts relating to emergency access and provision of emergency services. As noted above, year round staffing at the local Cal Fire CAL FIRE station during the construction |



**Table 4.12-1
 Impact and Mitigation Summary: Public Services**

| Impact | Mitigation Measures | Residual Impact |
|--|---|--|
| <p>times would exceed acceptable limits included in the General Plan Public Services Element. Impacts would be Class II, significant but mitigable. [Threshold 1(i)]</p> | <p>Applicable measures shall include but not be limited to on-site fire suppression, including on-site fire suppression equipment and fire suppression training for on-site personnel. The construction contractor shall be responsible for implementing the final Construction Management Plan, including applicable fire safety measures, for the duration of construction. Prior to the issuance of a construction permit, the applicant shall provide the County with a copy of the final Construction Management Plan approved by Cal Fire<u>CAL FIRE</u> that includes measures that adequately reduce the demand for fire protection services.</p> <p>PS-1(b) Emergency Response Training. During project construction and operation, on-site staff shall receive emergency response training and shall be informed of all emergency response procedures on a minimum annual basis. <u>Prior to operation of the project, the applicant shall consult with South Monterey County FPD/CAL FIRE staff to educate them in emergency response procedures for solar power facilities.</u> In addition, on-site fire suppression equipment (e.g. fire extinguishers) shall be maintained on-site for the duration of project operation.</p> <p>PS-1(c) Fire Protection during Construction. Prior to the issuance of a construction permit, the applicant shall enter into an agreement with Cal Fire<u>CAL FIRE</u> to provide sufficient fire protection services during the non-peak fire season for the duration of project construction via provision of sufficient funding and other measures necessary to keep the Cal Fire<u>CAL FIRE</u> Parkfield substation operational during the non-peak fire season. The measures to assure sufficient fire protection services in accordance with existing standards shall be subject to the review and approval of Cal Fire<u>CAL FIRE</u> and may include but not be limited to the following: funding for provision for</p> | <p>phase would address response times to the site. Impacts would therefore be less than significant.</p> |



**Table 4.12-1
Impact and Mitigation Summary: Public Services**

| Impact | Mitigation Measures | Residual Impact |
|--------|---|-----------------|
| | <p>fire personnel, increasing engine availability in the area <u>purchase of an additional patrol/rescue vehicle, and/or provision of a helicopter landing space in consultation with Cal Fire/CAL FIRE, the use of which will be restricted to emergency use only. A copy of the final, executed agreement shall be submitted to the County prior to the issuance of a construction permit.</u></p> | |

Section 4.12.2(b) (Fire Protection Services):

b. Fire Protection Services. The project site is located in a State Responsibility Area (SRA).³ Currently, this SRA lies outside of a legally formed fire protection district, so there is no Fire Authority Having Jurisdiction (FAHJ) on the project site (Browder, Personal Communication, September 22, 2014). As such, although the California Department of Forestry and Fire Protection Services (Cal Fire/CAL FIRE) is responsible for providing wildland fire suppression to the site and surrounding area, it is not responsible and for general fire protection services to the site and surrounding area, and would provide fire protection services for the proposed project. However, the project site is part of an existing annexation process into the South Monterey County Fire Protection District (FPD)/CAL FIRE, which would then have responsibility for general fire protection services (i.e., fire and rescue services) for the proposed project upon LAFCO approval of annexation.

The nearest ~~Cal Fire/CAL FIRE Forest Fire Station (FFS) substation~~ to the project site is located in Parkfield, which is approximately seven miles northwest of the project site, and would be the primary station responsible for responding to an emergency at or near the site during peak fire season. ~~Cal Fire/CAL FIRE~~ typically responds with a minimum of three personnel. The ~~Cal Fire/CAL FIRE Parkfield FFS substation~~ has a captain and usually three to four firefighters ~~one deputy~~ assigned to the area (depending on staffing, funding, and availability) and is staffed for five months out of the year, within the period between May and October (Browder, Personal Communication, September 22, 2014; John Owens, Assistant Chief ~~Cal Fire/CAL FIRE~~, San Benito/Monterey Unit, Personal Communication, July 31, 2013).

The *Emergency Access* discussion under Impact PS-1:

Emergency Access. Emergency access would be provided from two locations depending on the location of the emergency incident: 1) service providers would access the project site via an existing 5.6-mile private access road from SR 41, or 2) emergency access would occur from Turkey Flat Road. ~~Cal Fire/CAL FIRE~~ has identified that

³ The State Responsibility Area (SRA) is the area of the state where the State of California is financially responsible for the prevention and suppression of wildfires.



primary emergency access would occur from Turkey Flat Road given the proximity of the site in relationship to the existing fire station.

As part of this analysis, the appropriate fire service providers were contacted to ascertain whether the agency anticipates accessibility issues to the project site within its jurisdiction. As discussed in Section 4.12.2, Setting, the project site is currently in the process of annexation to the South Monterey County FPD/CAL FIRE, and it is assumed that this district would provide fire service to the site. Assistant Chief John Owens of ~~Cal Fire~~CAL FIRE /San Benito Monterey Unit identified several potential accessibility issues. First, ~~Cal Fire~~CAL FIRE would use air ambulance services in the area due to its remote location. Air ambulance services would be dispatched depending on severity of emergencies, weather conditions, and availability of medical helicopters in the area. A cleared area free of overhead obstructions suitable for use as a landing site has not been identified on project site plans. Additionally, adequate access would depend on road type and conditions, locked gates, weather, and the exact location of the emergency. Improved internal roads and improved access road would be required to meet General Plan requirements and Monterey County Fire Code requirements with respect to width and road conditions. The proposed project would be required to comply with access provisions of the Fire Code (Chapter 18.09) and the Wildfire Protection Standards in State Responsibility Areas (Chapter 18.56) relating to site access, including providing ~~Cal Fire~~CAL FIRE with access to any and all locked gates and maintaining existing roads. Section 18.56.060.13.d of the County Code allows the reviewing authority having jurisdiction (~~Cal Fire~~CAL FIRE) to require a key box or other acceptable means of immediate access for emergency equipment, and ~~Cal Fire~~CAL FIRE would require that such access is indicated on construction plans.

The *Fire Services* discussion under Impact PS-1:

Fire Services. As noted previously, the nearest ~~Cal Fire~~CAL FIRE station is located approximately seven miles from the site in Parkfield, and is staffed only during peak fire season (generally May through October). In order to meet the needs of the proposed project and the surrounding community during construction, ~~Cal Fire~~CAL FIRE would require year round staffing during both non-peak and peak fire season (Owens, Personal Communication, July 31, 2013). This could include the increase of staffing by five fire personnel: two Fire Captains and three Fire Apparatus Engineers -Paramedics or three Firefighter II Paramedics. Due to the nature of soils and precipitation patterns in the area, road conditions may become unsuitable for emergency access during and following peak storm events, which An increase in engine availability would be necessary in the area and we could require the purchase of one additional patrol/rescue vehicle~~new engine to serve the proposed project (Browder, Personal Communication, September 22, 2014)~~Owens, Personal Communication, July 31, 2013).

Sources and Notes section of Table 4.12-3:

Sources: John Owens, Assistant Chief, ~~Cal Fire~~CAL FIRE San Benito – Monterey South Division. Christopher Browder, Personal Communications, September 22, 2014.

Notes:

1. The existing average response times for CAL FIRE stations in Bradley, Lockwood, and King City only apply to the portion of the year when these stations are staffed (peak fire season).

n/a - ~~Cal Fire~~CAL FIRE does not have a set response time goal for State Response Areas. Response times are variable based on availability of engines and time of year (depending on preparedness levels).



Mitigation measures and *Significance After Mitigation* discussion for Impact PS-1:

- PS-1(a) Construction Management Plan.** The applicant shall include measures that reduce the demand for fire protection services during project construction in the final Construction Management Plan subject to the review and approval of ~~Cal Fire~~ CAL FIRE or the Monterey County FPD Fire Protection District as applicable. Applicable measures shall include but not be limited to on-site fire suppression, including on-site fire suppression equipment and fire suppression training for on-site personnel. The construction contractor shall be responsible for implementing the final Construction Management Plan, including applicable fire safety measures, for the duration of construction. Prior to the issuance of a construction permit, the applicant shall provide the County with a copy of the final Construction Management Plan approved by ~~Cal Fire~~ South Monterey County FPD/CAL FIRE that includes measures that adequately reduce the demand for fire protection services.
- PS-1(b) Emergency Response Training.** During project construction and operation, on-site staff shall receive emergency response training and shall be informed of all emergency response procedures on a minimum annual basis. Prior to operation of the project, the applicant shall consult with South Monterey County FPD/CAL FIRE staff to educate them in emergency response procedures for solar power facilities. In addition, on-site fire suppression equipment (e.g. fire extinguishers) shall be maintained on-site for the duration of project operation.
- PS-1(c) Fire Protection during Construction.** Prior to the issuance of a construction permit, the applicant shall enter into an agreement with ~~Cal Fire~~ South Monterey County FPD/CAL FIRE to provide sufficient fire protection services during the non-peak fire season for the duration of project construction via provision of sufficient funding (supplied by the applicant) and other measures necessary to keep the ~~Cal Fire~~ South Monterey County FPD/CAL FIRE Parkfield substation operational during the non-peak fire season. The measures to assure sufficient fire protection services in accordance with existing standards shall be subject to the review and approval of ~~Cal Fire~~ South Monterey County FPD/CAL FIRE and may include but not be limited to the following: funding (by the applicant) for provision for fire personnel, ~~increasing engine availability in the area~~ purchase of one additional patrol/rescue vehicle or equivalent vehicle capacity, and/or provision of a helicopter landing space in consultation with ~~Cal Fire~~ South Monterey County FPD/CAL FIRE, the use of



which will be restricted to emergency use only. A copy of the final, executed agreement shall be submitted to the County prior to the issuance of a construction permit.

Significance After Mitigation. Compliance with existing County ordinances and implementation of Mitigation Measures PS-1(a) through PS-1(c) would reduce potential impacts relating to emergency access and provision of emergency services. As noted above, year round staffing at the local ~~Cal Fire~~ South Monterey County FPD/CAL FIRE station during the construction phase [as required by Mitigation Measure PS-1(c)] would address response times to the site. Impacts would therefore be less than significant.

Second to last paragraph of Impact PS-3:

...Waste disposed to landfill during project decommissioning would be distributed to landfills in existence at the time. Similar to the construction phase, a demolition waste diversion program would be required by the SVSWA and San Luis Obispo County IWMA. In addition, as described in Section 2.0, Project Description, the project includes APM-1 to ensure that potential future environmental effects associated with project decommissioning – including those related to solid waste – would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.

Section 4.13 Transportation/Traffic

Table 4.13-1 (note mitigation measure not shown in its entirety, as this text has not been revised):

**Table 4.13-1
 Impact and Mitigation Summary: Traffic/Transportation**

| Impact | Mitigation Measures | Residual Impact |
|---|---|---|
| Impact T-7 An employee shuttle service would provide transport to and from the site during the construction phase. The exact location, and size, and design of the proposed park and ride facilities are not known at this time; therefore, there is the potential for secondary impacts to the environment to occur. Impacts would be Class II, significant but mitigable. [Threshold: multiple] | T-7 Park and Ride Facility Siting. | With implementation of the above mitigation measure, impacts would be reduced to a less than significant level. |

Fourth full paragraph under Impact T-1:

... decommissioning would likely involve construction truck trips and construction vehicle trips to transport employees to the site to dismantle the facility. Truck trips may also be required to transport the dismantled facility to a waste processing facility or recycling facility. The number of construction truck trips, construction vehicles, and travel routes are unknown at this time. As described in Section 2.0, Project Description, the project includes APM-1 to ensure that potential environmental effects associated



with project decommissioning – including those related to traffic and circulation – would be addressed at the time decommissioning is proposed consistent with regulations in effect at that time.

Mitigation Measure T-2:

- T-2 Friday Peak Hour Control Measures – Construction Phase.** All project generated traffic bound for SR 46 eastbound that would make the southbound left turn movement at the intersection of SR 41/SR 46 shall be removed by implementing traffic control measures at the project access road exit during the Friday PM peak hour between 4:35 PM and 5:35 PM. Truck delivery and construction workers bound for eastbound SR 46 shall be prohibited from making right turns from the project access road onto SR 41 by a flagman located at the project access road during the Friday PM peak hour. Vehicle destinations shall be identified by vehicle badges. The flagman shall identify these vehicles and direct them to make an eastbound left out movement from the project access road onto SR 41 east. An acceleration/receiving lane shall be constructed to accommodate this movement, in accordance with Caltrans requirements.

Significance After Mitigation. The removal of project generated trips destined for SR 46 east would divert all project trips from the southbound right turn movement and ultimately from the eastbound SR 46 during the Friday PM Peak Hour. The construction of an acceleration/receiving lane to accommodate left out movement from the project access road onto SR 41 east would occur entirely within the existing Caltrans right-of-way, and would be subject to a Caltrans encroachment permit. Impacts would be reduced to a less than significant level.

Impact T-7:

- Impact T-7 An employee shuttle service would provide transport to and from the site during the construction phase. The exact location, and size, and design of the proposed park and ride facilities are not known at this time; therefore, there is the potential for secondary impacts to the environment to occur. Impacts would be Class II, significant but mitigable. [Threshold: multiple]**

As described previously, trip generation for the construction phase assumes that an employee shuttle service would transport 95% of the total construction workforce to and from the project site. Designated employee shuttle park and ride locations would provide parking for the construction workforce. As noted in Section 2.0, Project Description, shuttle park-and-ride lots would likely be located west of the site on SR 46 in Paso Robles (Cuesta College North County Campus), northwest of the site on Highway



101 in King City (Wild Horse Café), and southeast of the project site near the intersection of SR 46 and SR 33 (Blackwell's Corner). These sites may require temporary fencing and minor surface improvements. The ultimate locations of the proposed park-n-ride facilities would be determined based on their proximity to SR 46 and SR 41, their ability to achieve the goal of 95% ridership, and their prior use for parking, including prior use for construction staging for other solar developments located in San Luis Obispo County. However, further details regarding the park-and-ride facilities are not available at this time. While the exact locations of the park and ride facilities have not been identified, one shuttle park and ride lot would be generally located west of the site on SR 46 in Paso Robles, the other park and ride lot will be located northeast of the project site approximately at the intersection of SR 41 and SR 33. Given that the size, design, and exact location of the parking facilities is not known at this time, there is the potential for adverse impacts to occur in several issue areas including but not limited to aesthetics, biological resources, water quality and hydrology, noise and transportation and traffic. Impacts would therefore be potentially significant.

Section 4.14 Effects Found Not to be Significant

Section 4.14.7 (Greenhouse Gas Emissions/Climate Change):

a. Thresholds of Significance. Pursuant to the *State CEQA Guidelines*, Appendix G checklist, potentially significant impacts would occur if the proposed project would result in any of the following:

- 1) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment and/or*
- 2) *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

Both of the above thresholds are analyzed in Section 4.7, *Greenhouse Gas Emissions/Climate Change*. Thus, there will be no further discussion herein.

In addition, the proposed project would have a less than significant impact on the local climate. Based on the available research discussed in Section 4.7, *Greenhouse Gas Emission/Climate Change*, utility-scale PV arrays do not substantially increase ambient temperatures on adjacent sites. Thus, there will be no further discussion herein of the radiant heat effect of solar facilities.

Section 6.0 Long-Term Impacts

Third paragraph of the *Construction Workforce* discussion in Section 6.1.1 (Economic and Population Growth):

As a condition of employment, 95% of construction personnel would be required to commute to the project site via the proposed employee shuttle that would depart from specified park-and-ride lots. Only 5% of employees would be given permits to drive personal vehicles to the site. While some the majority of the labor force would likely commute to the project park-and-ride lots from existing residences, some may elect to



temporarily relocate near the project site. Given the remote nature of the project site and the relatively limited availability of lodging in nearby rural communities (including Parkfield, Cholame, and Shandon), it is assumed that the majority of workers would find accommodation in the City of Paso Robles and/or the City of Avenal.

Section 7.0 Alternatives

Second paragraph of the *Hydrology and Water Quality* discussion for Alternative 2 (Alternate Jack Ranch Site):

Similar to the proposed project, this alternative would require water for dust suppression purposes during construction, as well as water to ~~potable water would be needed to~~ wash the modules and support overall operations at the site...

Transportation/Traffic discussion for Alternative 2 (Alternate Jack Ranch Site):

Transportation/Traffic. Like the proposed project, this alternative is expected to result in significant and unavoidable impacts to traffic and transportation during both construction and operation. The site would be accessed via Cholame Road and the SR 46 intersection. Project generated traffic during the construction phase would likely result in the segment of SR 46 between SR 41 and Branch Road operating at an unacceptable LOS E. Mitigation Measure T-1 referenced in Section 4.13, *Transportation/Traffic*, would alleviate potential impacts but they would remain Class I, *significant and unavoidable*.

~~As with the proposed project, construction of this alternative would add trips to the intersection of SR 41/SR 46, which currently operates at LOS F during the Friday PM Peak Hour. This impact would be Class II, significant but mitigable, with implementation of Mitigation Measure T-2, similar to the proposed project. This alternative would avoid potential impacts associated with the proposed project's addition of trips to the intersection of SR41/SR 46. The southbound left turn movement from SR 41 to SR 46 currently operates at an LOS F. This alternative would not add any trips traveling on SR 41 making a left onto eastbound SR 46. As a result, no mitigation would be warranted.~~

~~...Project generated traffic during the operation phase would add trips to the intersection of SR 41/ SR 46, similar to the proposed project. As discussed, this the southbound left at this intersection currently operates at LOS F during the Friday PM Peak Hour. This alternative would not contribute any traffic trips making a southbound left from SR 41 onto eastbound SR 46. As a result, this alternative would avoid the significant impacts associated with the proposed project (Impacts T-2 and T-4). Alternative related traffic would cause a Class II, significant but mitigable impact with implementation of Mitigation Measure T 4. As described for the proposed project, accident rates at the intersection of SR 41 / SR 46 are more than two times the statewide average. Addition of traffic to this intersection during construction and operation of the proposed project could exacerbate existing hazards. Implementation of Mitigation Measures T 2 and T 4 would reduce the impact but it would remain Class I, significant and unavoidable.~~

...Given that this alternative would construct a 280 MW solar generating facility over 12 to 24 months, similar to the proposed project, it is assumed that ~~the alternative site location, it is unknown whether~~ an employee shuttle service would be needed to provide transport to and from the site during construction. ~~It may be possible to phase construction to accommodate construction worker vehicles which would avoid the need for an off-site park and ride lot and related environmental impacts. If so, impacts associated with the proposed project would be avoided. If not,~~ As a result, impacts related to the secondary effects of park and ride lots would likely be similar to those described for the proposed project and Class II, *significant but mitigable* through implementation of Mitigation Measure T-7...

Second paragraph of the *Hydrology and Water Quality* discussion for Alternative 3 (Reduced Project):

Similar to the proposed project, ~~potable water would be needed to~~ this alternative would require water for dust suppression purposes during construction, as well as water to wash the PV modules and support overall operations at the site.

Table 7-1:

**Table 7-1
 Impact Comparison Summary**

| Issue | Proposed Project | No Project (Alternative 1) | Alternate Jack Ranch Site (Alternative 2) | Reduced Project (Alternative 3) |
|------------------------|------------------|----------------------------|---|---------------------------------|
| Transportation/Traffic | = | - | +/- | - |

- + Greater impact than the proposed project
- Less impact than the proposed project
- = No better or worse than the proposed project

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The following references have been added or modified in Section 8.1.1 (Bibliography):

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The following additions have been made to Section 8.1 (List of Preparers):

Walt Hamann, PG, CEG, CHG, QSP, QSD, Vice President, Environmental and Geological Services

Torin Snyder, PG, CHG, QSD, CPSS, Senior Hydrogeologist



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Attachment 4

Addendum to the EIR

ATTACHMENT 4

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Addendum Pursuant to the California Environmental Quality Act ARTICLE 11 Section 15164

Property Owner: Hearst Corporation

**Lessee/Applicant: California Flats Solar LLC; Cal Flats BESS,
LLC; and Cal Flats Solar 130, LLC.**

Planning File No. PLN120294-AMD1

**Amendment to Use Permit for the California Flats Solar Project
(Battery Energy Storage System Modification)**

1. Introduction

This technical addendum has been prepared pursuant to Article 11 Section 15164 of the California Environmental Quality Act Guidelines to address a permit amendment to the approved and constructed California Flats Solar Project to include the installation and operation of a Battery Energy Storage System and associated substation improvements and grading.

On February 10, 2015, the Monterey County Board of Supervisors certified an EIR, adopted CEQA findings and a statement of overriding considerations, and approved a Use Permit (RMA-Planning File No. PLN120294; Board of Supervisors Resolutions No. 15-026 and 15-027) to allow, for the duration of 34 years, the construction of a 280 Megawatt solar generating facility on an approximately 3,000 acre site including: photovoltaic (PV) solar modules, two substations (approximately 6 acres each), a switching station (approximately 6 acres), a 4,000 square foot operations and maintenance building, and approximately 155 acre utility corridor, other infrastructure needed to serve the proposed project and grading of approximately 880,000 cubic yards of cut and 880,000 cubic yards of fill..

An Environmental Impact Report (SCH#2013041031) was prepared and certified for the project. (Board of Supervisors Resolutions No. 15-026.) None of the conditions described in Section 15162 calling for preparation of a subsequent EIR or negative declaration have occurred.

2. Scope and Purpose of this Addendum

The purpose of this addendum is to document the potential environmental effects associated with the proposed California Flats Solar Project-Battery Energy Storage System Modification (“Proposed Modification”-PLN120294-AMD1). The Proposed Modification consists of the construction of a Battery Energy Storage System and related infrastructure improvements within the Solar Development Area (“SDA”), which was previously evaluated for utility-scale infrastructure in the February 2015 Final EIR for the California Flats Solar Project (PLN120294). The BESS would allow the existing facility to store energy generated during low-peak periods and subsequently distribute energy during peak period demand. The Proposed Modification is located within the previously approved footprint of the California Flats Solar

Project and does not represent a substantial change from the project analyzed in the EIR certified for the California Flats Solar Project.

As previously noted, the proposed modification is an amendment to the approved and constructed California Flats Solar Project to include the installation and operation of a Battery Energy Storage System and associated substation improvements and grading. Construction of the Battery Energy Storage System would take a total of approximately four to seven months. The proposed modification is located entirely within the existing 2,120-acre Solar Development Area, as approved in the original California Flats Solar Project. The actual footprint of the California Flats Solar Project is considerably less at 1,684 acres of the 2,120-acre Solar Development Area, approximately 436 acres less. The Use Permit allowed 880,000 cubic yards cut and 880,000 cubic yards of fill. The total grading, inclusive of the proposed grading for the modification, at 893,880 cubic yards of cut and 540,299 cubic yards of fill, is in substantial conformance with the allowable grading. Grading (cut) is 1.5% over the 880,000 cubic yards analyzed in the EIR and approved in the Use Permit. This 1.5% overage does not result in new significant environmental impacts or more severe environmental impacts than those identified in the EIR as the grading and location for the proposed modification has been identified in the EIR. See below for components of the proposed project and their descriptions for the modification request for the installation of the Battery Energy Storage System:

Battery Energy Storage System: Installation of up to 85 Tesla Megapack battery units: Each group of four Megapack battery units would be installed on an approximately 75 foot long by 12 foot wide by two foot thick concrete pad. The concrete pad would be located entirely within a previously disturbed three (3) acre site located within the existing Solar Development Area evaluated in the California Flat Solar Project EIR. Each battery unit would be fully integrated with pre-installed components housed outside, in stand alone cabinets with air conditioning. Each battery unit would have six battery modules, stored in racks, capable of discharging 3,699 kW with a charge capacity of 3,162 kW. Surface excavation of approximately 2.3 acres with an approximate depth of up to six (6) feet would be required for the establishment of the concrete pads that would house the Megapack battery units.

CA Flats 60 Substation Modification: The modification also includes improvements to the existing norther substation (CA Flats 60 Substation) to allow for additional energy to be converted from the Battery Energy Storage System. The substation would be constructed on an approximately 104x160 foot area immediately adjacent to the existing northern substation.

Connection to the Existing Transmission System: Approximately 1,650 feet of overhead line comprised of seven steel poles would be installed between the Battery Energy Storage System and new CA Flats 60 Substation. A section of the overhead line will run underground, crossing transmission right of way for approximately 350 feet. The trench depth would be approximately 12 feet wide with 1:1 side slopes.

Grading: The modification is anticipated to disturb an area of approximately 2.5 acres, requiring approximately 7,243 cubic yards of cut and 1,489 cubic yards of fill. No grading material is expected to be hauled off-site. The balance of material, approximately 5,754 cubic yards, will be temporarily stockpiled on-site for future reuse by the property owner (Hearst Corporation). The

stockpiled material will be used as part of on-going ranch maintenance related activities. The final location for soil deposition will be determined based on discussions between Hearst and the Applicant and a Condition of Approval has been incorporated for the soil deposition to be on-site. There is an existing disturbed area south of the proposed Battery Energy Storage System Modification where soil was stockpiled previously. This area could be used for similar purposes as part of the project. Prior to any soil placement on-site, the applicant would conduct pre-construction surveys of the soil deposition area and identify any recommendations consistent with the requirements of the California Flats Project EIR.

3. Analysis

Sec. 15164 of the CEQA Guidelines governs the preparation of an Addendum to an EIR or Negative Declaration. Section 15164(a) states that the “lead agency... shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR have occurred.” CEQA Guidelines Sec. 15162(a) indicates that “no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole record, one or more of the following:

- 1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- 2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- 3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
 - a) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
 - b) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
 - c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - d) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.”

The following discussion explains why a subsequent or supplemental EIR is not required under CEQA Guidelines Section 15162 in connection with the Proposed Modification and why an Addendum is the appropriate level of environmental review.

I. ANALYSIS

- a. **The Proposed Modification does not entail substantial changes which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.**

CEQA Guidelines Sec. 15162(a)(1) provides that no subsequent EIR shall be prepared unless the lead agency determines that “[s]ubstantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects of a substantial increase in the severity of previously identified significant effects.” As noted above, the Proposed Modification would not result in any new significant environmental effects or an increase in the severity of a previously identified significant impact. The Proposed Modification is located entirely within the existing, previously analyzed, 2,120-acre SDA.

As identified in **Exhibit 1**¹, only 1,684 acres of the 2,120-acre SDA were developed with utility-scale solar infrastructure. Nevertheless, the Final EIR evaluated the environmental effects associated with the development of the entire 2,120-acre SDA – i.e., the Final EIR assumed that the entire SDA would be developed. As a result, the existing Final EIR previously anticipated that the area of the Proposed Modification would be developed with utility-scale infrastructure improvements. Additionally, the area of the proposed Battery Energy Storage System modification was previously disturbed in connection with construction of the California Flats Solar Project. Similarly, the California Flats Solar Final EIR also evaluated the effects associated with the development of two (2) substations, each to be approximately six (6) acres in size. The actual footprint of each substation was 0.96 acres and 0.95 acres. As a result, the Proposed Modification to the existing northern substation would not exceed the total substation acreage evaluated in the Final EIR. Neither the Battery Energy Storage System modification nor the substation modification would result in additional environmental effects beyond those previously identified in the California Flats Solar Final EIR. In addition, as detailed in **Exhibit 1**, the Proposed Modification would be subject to the existing mitigation measures contained in the Final EIR, thereby ensuring that the Proposed Modification would not result in any additional environmental effects. The analysis as contained in **Exhibit 1**, as well as supporting technical documentation included as part of the amendment application, conclusively states that the Proposed Modification would not result in any new environmental effects or increase the severity of a previously identified impact.

Therefore, the Proposed Modification would not require major revisions of the previous information due to the involvement of new significant environmental effects or a substantial increase in the severity of a previously identified significant effect.

- b. **The Proposed Modification would not result in substantial changes with respect to the circumstances under which the project is undertaken which will require major revisions due to the involvement of new significant environmental effects or a substantial increase in the severity of a previously identified significant effect.**

¹ Exhibit 1 is a CEQA Checklist evaluating the environmental effects associated with construction and operation of the California Flats Solar Project- Battery Storage System Modification.

CEQA Guidelines Sec. 15162(a)(2) provides that no subsequent EIR shall be prepared unless the lead agency determines that “[s]ubstantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.” The Proposed Modification would not result in a substantial change with respect to the circumstances under which the project is undertaken such that there would be additional environmental effects or increase the severity of a previously identified effect beyond those previously identified in the California Flats Solar Final EIR.

As described above, the Proposed Modification would modify the existing California Flats Solar Project to allow for on-site energy storage. The Proposed Modification would allow the existing facility to store energy during low-peak period and subsequently distribute energy during peak period demand. Energy storage is an important component of energy conservation because it allows renewable energy sources to store power during periods when demand is low and subsequently provide clean, reliable, sources of energy during peak demand. This modification would not result in a substantial change with respect to the circumstances under which the California Flats Solar Project is being undertaken, meaning that there would be no additional environmental effects beyond those previously identified in the CFS Project Final EIR. The CFS Project would continue to produce solar-generated energy and the Proposed Modification would facilitate on-going energy production by allowing for on-site storage during non-peak demand periods. Moreover, as demonstrated in **Exhibit 1**, the Proposed Modification would not result in a new, previously unidentified, significant environmental effect or result in a substantial increase in the severity of a previously identified significant effect. In fact, the Proposed Modification, when considered in combination with the existing California Flats Solar Project, would still result in fewer environmental effects than those identified in the Project Final EIR. As discussed in the preceding section, the California Flats Solar Project Final EIR evaluated impacts associated with the buildout of the entire 2,120-acre SDA, including two substations totaling 12 acres in size. Only 1,648 acres of the 2,120-acre SDA was developed as part of the California Flats Solar Project and the actual substation footprint for the northern substations was less than one (1) acre.

Therefore, the Proposed Modification would not result in substantial changes with respect to the circumstances under which the Proposed Modification is undertaken which would require major revisions of the Final EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

c. The Proposed Modification does not entail new information of substantial importance.

CEQA Guidelines Sec. 15162(a)(3) provides that no subsequent EIR shall be prepared unless the lead agency determines that

“[n]ew information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

- a) the project will have one or more significant effects not discussed in the previous EIR;

- b) significant effects previously examined will be substantially more severe than shown in the previous EIR;
- c) mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents declined to adopt the mitigation measure or alternative; or,
- d) mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents declined to adopt the mitigation measure or alternative.”

No new information of substantial importance has been identified such that the California Flats Solar Project would result in: 1) significant environmental effects not identified in the California Flats Solar Project Final EIR; 2) more severe environmental effects than described in the California Flats Solar Project Final EIR; 3) mitigation measures or alternatives which were previously determined not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects, but the applicant declines to adopt the measure or alternative; or, 4) mitigation measures or alternatives which are considerably different from those analyzed in the California Flats Solar Project Final EIR would substantially reduce one or more significant effects on the environment, but the applicant declines to adopt the measures or alternatives.

The Proposed Modification would not result in any additional environmental effects or increase the severity of a previously identified significant effect. In fact, the Proposed Modification when considered with the constructed California Flats Solar Project would result in fewer environmental effects than those identified in the California Flats Solar Project Final EIR. Moreover, no additional mitigation measures beyond those identified in the California Flats Solar Project Final EIR are necessary to lessen the extent of impacts associated with the Proposed Modification. The Proposed Modification would implement all existing mitigation measures and related conditions of approval, to the extent they are applicable, to ensure that impacts associated with construction and operation of the Proposed Modification would not exceed the levels identified in the California Flats Solar Project Final EIR. Similarly, no additional mitigation measures that are considerably different from those analyzed in the California Flats Solar Project Final EIR have been identified as part of the supporting technical analyses, which conclusively determined that the Proposed Modification would not result in any additional environmental effects beyond those identified in the California Flats Solar Project Final EIR.

There is no new information of substantial importance showing any of the items listed in CEQA Guidelines Sec. 15162(a)(3).

4. Conclusion

This addendum serves to demonstrate the Proposed Modification qualifies for an addendum to the previously certified California Flats Solar Environmental Impact Report (SCH#) pursuant to CEQA Guidelines Section 15164 if some changes or additions are necessary but none of the conditions described in CEQA Guidelines Section 15162 calling for the preparation of a subsequent EIR have occurred. Based on the analysis contained in this Addendum, the Proposed

Modification would not: 1) result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects; 2) would not cause a substantial change with respect to the circumstances under which the California Flats Solar Project was originally undertaken, which would require major revisions to the previously certified Final EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or, 3) result in new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous Final EIR was certified as complete. Based on the foregoing analysis, as well as the supporting analysis contained in **Exhibit 1**, the appropriate level of environmental review for the Proposed Modification would be an Addendum.

5. Attachment

Exhibit 1- CEQA Checklist evaluating the environmental effects associated with construction and operation of the California Flats Solar Project- Battery Storage System Modification.

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Exhibit 1

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Exhibit 1 to Attachment B

CEQA Checklist evaluating the environmental effects associated with construction and operation of the California Flats Solar Project- Battery Storage System Modification

ENVIRONMENTAL ANALYSIS

A. Aesthetics

CHECKLIST

| Except as provided in Public Resources Code Section 21099, would the project: | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (Unchanged) | Less than Significant with Mitigation Incorporated (Unchanged) | Less than Significant Impact (Unchanged) | No Impact |
|---|---|--------------------------------|--|--|-------------------------------------|
| a) Have a substantial adverse effect on a scenic vista? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

The CFS Project EIR analyzed aesthetics-related impacts that would occur as part of the CFS Project. Construction-related impacts would result in temporary effects on motorist views from SR 41 (see Impact AES-1, Draft EIR, pg. 4.1-21 through 4.1-22). The CFS Project EIR also identified that the CFS Project would visually transform the character of the project site (see Impact AES-2, Draft EIR, pg. 4.1-22 through 4.1-24; see also Final EIR, pg. 4-28) and introduce new sources of light that would adversely affect existing visual resources in the area (see Impact AES-3, Draft EIR, pg. 4.1-25 through 4.1-26). These impacts were identified as less than significant with the implementation of certain mitigation measures. Below is a brief description of the findings of the CFS Project EIR regarding aesthetic-related effects.

- The CFS Project EIR identified a potentially significant construction impact to scenic vistas from SR 41. However, this impact would be reduced to less than significant with the implementation of the following mitigation measure: *AES-1: Temporary Fencing at SR 41 Staging Areas*. No significant operational impacts to scenic vistas and resources were identified. The Proposed Modification does not entail any construction staging along SR 41; as a result, there would be no impact due to the Proposed Modification.
- The CFS Project EIR identified potentially significant construction impacts to the existing visual character due to construction staging off of SR 41. However, this impact would be reduced to less than significant with the implementation of the following mitigation measure: *AES-1: Temporary Fencing at SR 41 Staging Areas*. Less than significant operational impacts to the visual character of the project site were identified.
- The CFS Project EIR also identified a potentially significant impact due to new sources of light. However, this impact would be reduced to less than significant with the implementation of the

following mitigation measure: *AES-3 Minimize Construction Lighting*. In addition, the CFS Project EIR identified less than significant impact due to glint and glare from the PV modules.

IMPACTS OF THE PROPOSED MODIFICATION

As discussed above, the Proposed Modification is located entirely within the existing 2,120-acre SDA. The CFS Project EIR previously evaluated the aesthetic-related effects associated with the construction of utility-scale solar infrastructure in the SDA. While the CFS Project EIR did not specifically consider the potential effects associated with the Proposed Modification, the CFS Project EIR did consider the environmental effects associated with the construction of infrastructure improvements in the location of the Proposed Modification. The potential aesthetic-related effects associated with the Proposed Modification, as described below, would be consistent with the findings of the CFS Project EIR and no new or more severe effects would occur beyond those identified in the EIR.

a, b) No Impact. The CFS Project EIR identified potential aesthetic-related impacts due to the staging of construction equipment off SR 41. As a result, the CFS Project EIR identified mitigation to minimize the temporary aesthetic-related impacts due to construction staging. The Proposed Modification, which is not visible from a scenic vista or visible from an eligible state scenic highway, does not entail the staging of construction equipment off SR 41. As a result, the Proposed Modification would not result in a substantial adverse effect on a scenic resource or substantially damage a scenic resource within view of a state scenic highway. There would be no impact. As a result, the Proposed Modification would result in less environmental effects than the CFS Project. Nevertheless, the Proposed Modification would continue to adhere to the requirements of mitigation measures *AES-1: Temporary Fencing at SR 41 Staging Areas* identified in the CFS Project EIR regarding temporary aesthetic-related impacts in the unlikely event that temporary staging off SR 41 would be necessary.

c) No Impact. The Proposed Modification would not substantially degrade the existing visual character or quality of public views of the site and its surrounding. The Proposed Modification is located entirely within the existing footprint of the CFS Project (i.e., SDA) and is surrounded by existing utility-scale solar infrastructure. Moreover, the Proposed Modification would not be visible for any publicly accessible vantage point. As a result, there would be no impact from the Proposed Modification. The extent of potential environmental effects associated with the Proposed Modification would be less than those associated with the CFS Project.

d) Less than Significant Impact with Mitigation. The Proposed Modification would result in the construction and operation of additional utility-scale solar infrastructure within the existing CFS Project footprint. As noted above, the site is currently improved with energy production infrastructure that is part of the CFS Project. The construction and operation of the Proposed Modification would result in the introduction of additional lighting for security purposes. The CFS Project EIR previously identified potential aesthetic-related effects due to increased lighting and glare. However, the Proposed Modification would not substantially increase lighting and/or glare on-site beyond levels associated with the existing CFS Project. The Proposed Modification could result in temporary construction-related lighting similar to the CFS Project. The Proposed Modification would implement existing mitigation measures to ensure that potential aesthetic-related effects would be minimized to a less than significant level. More specifically, the Proposed Modification would comply with the requirements of mitigation measure *AES-3 Minimizing Construction Lighting* to ensure that temporary construction-related light would be minimized. As a result, the Proposed Modification would not result in any additional environmental effects beyond those identified in the CFS Project EIR.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR related to aesthetics. The Proposed Modification would implement the following mitigation measures, consistent with the CFS Project EIR, to ensure that potential impacts would be less than significant: *AES-3 Minimize Construction Lighting*. The implementation of existing mitigation measures would ensure that potential impacts associated with the Proposed Modification would be consistent with the findings of the CFS Project EIR.

B. Agricultural Resources

EXISTING SETTING

CFS Project EIR includes a detailed description of the existing environmental setting for agricultural resources.¹ As identified in Section 4.2, Agricultural Resources, the CFS Project site was historically dry land farmed and used for ranching and grazing purposes. The site is currently developed with utility-scale solar infrastructure as part of the CFS Project. According to the Farmland Mapping and Monitoring Program (“FMMP”), the CFS Project site is classified as Grazing Land, and Other Land. A small portion of the utility corridor included Prime Farmland and Unique Farmland. The Proposed Modification is designated Grazing Land according to the FMMP.

CHECKLIST

| In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project: | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (Unchanged) | Less than Significant with Mitigation Incorporated (Unchanged) | Less than Significant Impact (Unchanged) | No Impact |
|---|---|---------------------------------|--|---|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

As described in the CFS Project EIR, the CFS Project would not: 1) result in the permanent conversion of Prime Farmland and Unique Farmland, as designated by the California Department of Conservation’s FMMP, to a non-agricultural use (see Impact AG-1, Draft EIR, pg. 4.2-8); 2) conflict with the existing

¹ Please refer to the Section 4.2, Agricultural Resources, of the CFS Project Draft EIR for more information.

zoning for agricultural use or a Williamson Act Contract (see Impact AG-2, Draft EIR, pg. 4.2-9; see also Final EIR, pg. 4-29 through 4-30); or, 3) result in the permanent conversion of adjacent agricultural land (i.e., Prime, Unique, or Statewide Importance) to a non-agricultural use (see Impact AG-3, Draft EIR, pg. 4.2-9 through 4.2-11). Below is a brief description of the findings of the CFS Project EIR regarding agricultural-related effects.

- The CFS Project EIR did not identify any significant impacts to Prime and Unique Farmland, as designated by the California Department of Conservation's FMMP. This impact would be less than significant with no mitigation measure required because the CFS Project would not permanently convert Prime or Unique farmland to non-agricultural use.
- The CFS Project EIR did not identify any significant impacts associated with the allowable uses on the CFS Project site. The EIR concluded that the use of the site for renewable energy purposes would not conflict with existing zoning for agricultural use or an existing Williamson Act contract.
- The CFS Project EIR did not identify any significant impacts associated with the loss or conversion of forest land on the CFS Project site. Similarly, the CFS Project EIR determined that the CFS Project would not result in the loss or conversion of timberland. The CFS Project site is not zoned for forest land or timber land production and the Proposed Modification would not require the removal of native tree species.
- The CFS Project EIR did not identify any significant impacts associated with the construction, operation, and potential future decommissioning of the CFS Project related to the permanent conversion of adjacent farmland to non-agricultural use. The CFS Project EIR identified that the CFS Project could indirectly affect adjacent agricultural use due to temporary construction-related effects, but it would not impair agricultural use, including grazing, of nearby properties such that adjacent farmland would be converted to a non-agricultural use. Therefore, impacts would be less than significant.

IMPACTS OF THE PROPOSED MODIFICATION

The Proposed Modification is located entirely within the existing 2,120-acre SDA, which was proposed to be improved with utility-scale solar infrastructure as part of the CFS Project. As a result, the CFS Project EIR evaluated the potential agricultural resource-related impacts associated with the construction of infrastructure within the area of the Proposed Modification. As described below, the Proposed Modification would not result in any additional environmental effects or increase the severity of a previously identified impact beyond those identified in the CFS Project EIR.

a-e) No Impact The Proposed Modification would not convert prime, unique or farmland of statewide importance to non-agricultural use or involve any other changes that would result in the conversion of farmland, impact a Williamson Act contract or disrupt any agricultural operations (Monterey County, 2010a). Moreover, the Proposed Modification would not convert forest land or timberland or involve any other changes that would result in the conversion or loss of forest land. In addition, the Proposed Modification does not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of a significant impact beyond the levels identified in the CFS Project EIR related to agricultural resources.

C. Air Quality

EXISTING SETTING

Much of the information in this section was provided by the technical memorandum prepared by Ambient Air Quality and Noise Consulting, dated February 13, 2020. This report was prepared specifically to assess the potential environmental effects of the Proposed Modification in comparison to the findings of the CFS Project EIR.

The CFS Project EIR includes a comprehensive description of the existing setting for air quality.² As described in Section 4.3, Air Quality, of the CFS Project EIR, the CFS Project is located in the North Central Coast Air Basin (“Air Basin”), adjacent to the South Central Coast Air Basin (“SCCAB”), and the San Joaquin Valley Air Basin (“SJVAB”). The site is located in the southeastern corner of the Air Basin, which covers an area of 5,159 square miles along the central coast of California and is generally bounded by the Monterey Bay to the west, the Santa Cruz Mountains to the northwest, and the Diablo Range on the northeast.

This area typically has average maximum and minimum winter (i.e., January) temperatures of 65 degrees Fahrenheit (°F) and 43 °F, respectively, while average summer (i.e., July) maximum and minimum temperatures are 108 °F and 83 °F, respectively. The CFS Project is located inland where temperatures can be rather extreme during the summer months. Precipitation averages approximately 6 inches per year.

The Monterey Bay Air Resources District (“MBARD”) is the regional agency tasked with managing air quality in the region. Existing levels of air pollutants in the area can generally be inferred from ambient air quality measurements conducted by MBARD at its closest station, the King City - Pearl monitoring station. This is the closest monitoring station located in the Air Basin, located in Kings City, west of South Vanderhurst Ave and south of Pearl Street approximately 60 miles from the project site. Data monitored at this station shows that although the area currently does not meet state standards for ozone, the number of days per year in exceedance of ozone standards has been decreasing and the region is on course to meet these standards in the future.

CHECKLIST

| Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project: | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|---|---|--------------------------------|--|--|--------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Expose sensitive receptors to substantial pollutant concentrations? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

² . For a description of the existing setting, please refer to Section 4.3, Air Quality, of the CFS Project Draft EIR.

| Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project: | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|---|---|--------------------------------|--|--|-------------------------------------|
| d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

The CFS Project EIR analyzed potential air quality impacts associated with the construction and operation of the CFS Project. The CFS Project EIR identified that construction would result in several air quality impacts, including a significant and unavoidable impact associated with temporary construction-related air quality emissions that would exceed applicable MBARD thresholds of significance (see Impact AQ-2, Draft EIR, pg. 4.3-22 through 4.3-27; see also Final EIR, pg. 4-30 through 4-51). The CFS Project EIR also identified temporary air quality effects during construction associated with the potential exposure of construction personnel to human health hazards in connection with Valley Fever (see Impact AQ-6, Draft EIR, pg. 4.3-32 through 4.3-36). Mitigation measures were identified to ensure that potential temporary Valley Fever-related hazards would be reduced to a less than significant level. Below is a brief description of the findings of the CFS Project EIR regarding air quality-related effects.

- The CFS Project EIR did not identify any significant impacts associated with population growth and the Air Quality Management Plan (“AQMP”). Similarly, implementation of the Proposed Modification would not obstruct implementation of an air quality plan because no direct growth inducement is expected to occur due to the Proposed Modification.
- The CFS Project EIR identified a significant and unavoidable impact associated with the generation of temporary air pollutants, which would affect local air quality. Short-term emissions of nitrogen oxide (“NO_x”) and Particulate Matter (“PM₁₀”) during construction would exceed the MBARD thresholds. In order to minimize these significant impacts, the CFS Project EIR identified the following mitigation measures: *AQ-2(a): Dust Control Measures and, AQ-2(b): Idling Restrictions*. Despite the implementation of the mitigation measures, temporary construction emissions would exceed MBARD thresholds for NO_x and PM₁₀. Therefore, the CFS Project EIR identified that impacts would be significant and unavoidable during construction. It is important to note, however, that potential temporary air quality effects would not result in a significant impact. As a result, impacts associated with the Proposed Modification would be less than those identified in the CFS Project EIR.
- The CFS Project EIR did not identify any significant impacts associated with the exposure of sensitive receptors to substantial pollutant concentration. No mitigation measures were required, but the implementation of the following mitigation measures would further minimize potential air quality effects: *AQ-2(a): Dust Control Measures, AQ-2(b): Idling Restrictions, and AQ-2(c): Tier 3 Construction Equipment*. The CFS Project EIR concluded that there would be no significant impacts to sensitive receptors.
- The CFS Project EIR did not identify any significant impacts related to the creation of objectionable odors that would affect neighboring properties.
- The CFS Project EIR identified a potentially significant impact related to the generation of dust and exposure of receptors to potential health hazards associated with the *Coccidioides* fungus (Valley Fever). However, the CFS Project EIR concluded that this impact would be reduced to less than significant with the implementation of the following mitigation measures: *AQ-2(a): Dust Control Measures, AQ-6(a): Valley Fever Management Plan, AQ-6(b): Additional Valley Fever*

Dust Suppression Measures, AQ-6(c): Monterey County Health Department Notification, AQ-6(d): Valley Fever Worker Training Program and Safety Measures, and AQ-6(e): Valley Fever Information Handout. As a result, the CFS Project EIR concluded that impacts would be less than significant.

- The CFS Project EIR identified a potentially significant impact related to temporary air quality impacts as a result of the decommissioning of the CFS Project. These impacts would remain significant and unavoidable despite the implementation of the following mitigation measures: *AQ2(a): Dust Control Measures, AQ-2(b): Idling Restrictions, and Mitigation Measure AQ-2(c): Tier 3 Construction Equipment.* Therefore, the CFS Project EIR concluded that emissions from decommissioning of the CFS Project would be significant and unavoidable.
- The CFS Project EIR identified a potentially significant impact due to short-term emissions of ozone precursors and PM₁₀ during construction which would exceed San Luis Obispo County Air Pollution Control District (“SLOAPCD”) thresholds. In an attempt to reduce the impacts, *Mitigation Measures AQ2(a): Dust Control Measures, AQ-2(b): Idling Restrictions, Mitigation Measure AQ-2(c): Tier 3 Construction Equipment, and Mitigation Measure AQ-9: Construction Management Plan Requirements (per the requirements of SLOAPCD)* would be implemented; however, the CFS Project EIR concluded that temporary emissions would exceed applicable ambient air quality standards within the SCCAB. Therefore, the CFS Project EIR concluded that impacts would be significant and unavoidable. It is important to note, however, that the Proposed Modification does not entail the construction of improvements within the SCCAB. As a result, the Proposed Modification would not result in an exceedance of applicable SLOAPCD thresholds of significance.

IMPACTS OF THE PROPOSED MODIFICATION

As discussed above, Ambient Air Quality and Noise Consulting prepared a detailed technical memorandum evaluating the potential environmental effects associated with the Proposed Modification. More specifically, Ambient evaluated whether the Proposed Modification would result in any additional environmental effects or would increase the severity of a previously identified significant impact beyond those previously identified in the CFS Project EIR. Based on Ambient’s analysis, the potential air quality effects associated with the Proposed Modification would be less than those described in the CFS Project EIR. The following represents the results of the site-specific technical analysis prepared by Ambient which conclusively determined that the Proposed Modification would not result in any additional environmental effects or an increase in the severity of a previously identified impact beyond the levels identified in the CFS Project EIR.

a) Less than Significant Impact: CEQA Guidelines Sec. 15125(b) requires that a project is evaluated for consistency with applicable regional plans, including the AQMP. The MBARD is required to update their AQMP once every three years; the most recent update was approved in March of 2017. This plan addresses attainment of the State ozone standard and federal air quality standard. The AQMP accommodates growth by projecting growth in emissions based on population forecasts prepared by the Association of Monterey Bay Area Governments (“AMBAG”) and other indicators. Consistency determinations are issued for commercial, industrial, residential, and infrastructure related projects that have the potential to induce population growth. A project is considered inconsistent with the AQMP if it has not been accommodated in the forecast projections considered in the AQMP. The Proposed Modification would be consistent with the MBARD AQMP based upon the low number of employees and lack of large stationary sources. In addition, the Proposed Modification would not cause and/or otherwise induce population growth because the modifications would simply allow additional energy produced at the existing solar facility to be stored for transmission. As a result, the Proposed Modification would not induce growth nor would it conflict with and/or otherwise obstruct the implementation of MBARD’s AQMP. For these reasons, the Proposed

Modification would have a less than significant impact related to conflicts with air quality plans and would be consistent with the findings of the CFS Project EIR.

b) Less than Significant Impact: The MBARD 2016 CEQA Air Quality Guidelines (Guidelines) contains standards of significance for evaluating potential air quality effects of projects subject to the requirements of CEQA. According to MBARD, a project will not have a significant air quality effect on the environment, if the following criteria are met:

Construction of the project will:

- Emit (from all sources, including exhaust and fugitive dust) less than;
 - 137 pounds per day of oxides of nitrogen (NO_x);
 - 137 pounds per day of reactive organic gases (ROG);
 - 82 pounds per day of respirable particulate matter (PM₁₀);
 - 55 pounds per day of fine particulate matter (PM_{2.5}); and,
 - 550 pounds per day carbon monoxide (CO).

Operation of the project will:

- Emit (from all project sources, mobile, area, and stationary) less than;
 - 137 pounds per day of oxides of nitrogen (NO_x)
 - 137 pounds per day of reactive organic gases (ROG)
 - 82 pounds per day of PM₁₀
 - 55 pounds per day of PM_{2.5}
 - 550 pounds per day carbon monoxide (CO)
- Not cause or contribute to a violation of any California or National Ambient Air Quality Standard;
- Not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment;
- Not exceed the health risk public notification thresholds adopted by the MBARD;
- Not create objectionable odors affecting a substantial number of people; and,
- Be consistent with the adopted federal and state Air Quality Plans (MBAPCD, 2016).

The MBARD CEQA Guidelines state that if a project generates less than 82lb/day of PM₁₀ emissions during construction, the project is considered to have a less than significant impact (see Table 5-1, MBARD, 2016). MBARD CEQA Guidelines also state that a project will result in less than significant impacts if daily ground-disturbing activities entail less than 8.1 acres of minimal earthmoving, or less than 2.2 acres of grading and excavation. Construction projects below these acreage thresholds would be below the applicable MBARD 82 lb/day threshold of significance and would constitute a less than significant effect for the purposes of CEQA (MBARD, 2016). The total construction area of the Proposed Modification is a maximum of approximately 2.5 acres, however, construction on any given day is likely to be much less. As noted above, the CFS Project EIR identified that construction of the CFS Project would result in a significant and unavoidable air quality impact due to temporary construction-related activities. The CFS Project EIR identified mitigation measures to minimize the extent of impacts, but the implementation of these measures would not reduce impacts to a less than significant level. However, the Proposed Modification would result in considerably less air quality effects than the CFS Project due to the limited nature of construction activities. As a result, the Proposed Modification is not anticipated to exceed applicable MBARD thresholds of significance for construction-related emissions. Nevertheless, the Proposed Modification would implement the existing mitigation measures, including the following mitigation measures identified in the CFS Project EIR, to minimize potential air quality effects: *AQ-2(a): Dust Control Measures* and *AQ-2(b): Idling Restrictions*. These mitigations, together with the relatively small construction area, would ensure that potential impacts associated with the Proposed Modification would be less than significant.

The Proposed Modification would result in temporary increases in emissions of inhalable particulates (PM_{2.5} and PM₁₀), VOC, and NO_x associated with construction-related activities, see **Table 1. Construction Air Quality Emissions** below for detailed information on these emissions. For more information, please refer to the technical memorandum prepared by Ambient Air Quality and Noise Consulting (February 2020). Construction-related fugitive dust emissions associated with the Proposed Modification would be generated from site grading and construction. In addition to construction-related fugitive dust, exhaust emissions associated with construction vehicles and equipment would also be generated.

Table 1
Construction Air Quality Emissions

| | Emissions in Pounds/Day | | | |
|--|-------------------------|-------------------|------------------|------|
| | NO _x | PM _{2.5} | PM ₁₀ | ROG |
| Significance Threshold (MBARD) | 137* | 55 | 82 | 137* |
| Emissions generated by the modifications | 24.1 | 4.7 | 10.1 | 0.74 |
| Exceed Threshold? | No | No | No | No |

Emissions Source: Technical Memo prepared by Ambient Air Quality and Noise Consulting for the Battery Energy Storage System Modification dated February 13, 2020.

Significance Threshold Source: MBARD, 2016

* Applies to non-typical construction equipment (i.e., well drilling) MBARD has identified that construction projects using typical construction equipment such as dump trucks, scrapers, bulldozers, compactors and front-end loaders that temporarily emit precursors of ozone (i.e., VOC or NO_x), are accommodated in the emission inventories of State- and federally-required air plans. Temporary emissions associated with the operation of construction equipment have been accommodated in State- and federally-required air plans.

The construction emissions generated by the Proposed Modification would not overlap with construction of other components of the CFS Project because all physical components of the CFS Project have already been constructed. Therefore, the emissions associated with the construction of the Proposed Modification would not add to the construction emissions of the CFS Project, and would not increase the severity of the air quality impacts identified in the CFS Project EIR. Construction would last approximately four (4) to seven (7) months. As shown in **Table 1. Construction Air Quality Emissions**, construction emissions would not exceed applicable MBARD thresholds. As a result, the Proposed Modification would not result in a new or substantially more severe significant impact due to air quality emissions during construction.

The Proposed Modification would result in operational air quality emissions. **Table 2. Operational Air Quality Emissions** identifies anticipated operational emissions. The increase in operational emissions associated with the Proposed Modification would not increase the severity of impacts identified in the CFS Project EIR. Moreover, all operational emissions would be below applicable MBARD thresholds. As a result, the Proposed Modification would not result in emissions that would result in any new significant impacts or cause an increase in severity of a previously identified impact beyond the levels identified in the CFS Project EIR based on an exceedance or violation of the applicable air quality standards.

Table 2.
Operational Air Quality Emissions

| | Emissions in Pounds/Day | | | |
|--|-------------------------|-------------------|------------------|------|
| | NO _x | PM _{2.5} | PM ₁₀ | ROG |
| Significance Threshold (MBARD) | 137* | 55 | 82 | 137* |
| Emissions generated by the modifications | 6.51 | 0.99 | 0.09 | 3.56 |
| Exceed Threshold? | No | No | No | No |

Emissions Source: Technical Memo prepared by Ambient Air Quality and Noise Consulting for the Battery Energy Storage System Modification dated February 13, 2020.

Significance Threshold Source: MBARD, 2016

* Applies to non-typical construction equipment (i.e., well drilling) MBARD has identified that construction projects using typical construction equipment such as dump trucks, scrapers, bulldozers, compactors and front-end loaders that temporarily emit precursors of ozone (i.e., VOC or NO_x), are accommodated in the emission inventories of State- and federally-required air plans. Temporary emissions associated with the operation of construction equipment have been accommodated in State- and federally-required air plans.

c) Less than Significant Impact with Mitigation: The CFS Project EIR identified that construction could result in the exposure of sensitive receptors to potential hazards associated with Valley Fever. As identified in the CFS Project EIR, standard construction Best Management Practices (“BMPs”) to minimize fugitive dust emissions, as well as standard erosion control measures, would minimize potential hazards associated with the release of fungal spores. These measures are consistent with the recommendations of the California Department of Public Health. The Proposed Modification would implement BMPs throughout construction

to minimize fugitive dust and potential erosion-related impacts, and post-construction revegetation that would reduce potential Valley Fever hazards. Construction of the Proposed Modification would result in ground-disturbing activities that could similarly expose construction personnel to Valley Fever related health hazards. In order to minimize these potential effects, the Proposed Modification would implement all mitigation measures identified in the CFS Project EIR, including the following: *AQ-2(a) Dust Control Measures*, *AQ-6(a) Valley Fever Management Plan*, *AQ-6(b) Additional Valley Fever Dust Suppression Measures*, *AQ-6(c) Monterey County Health Department Notification*, *AQ-6(d) Valley Fever Training Program and Safety Measures*, and *AQ-6(e) Valley Fever Information Handout*. Moreover, California Flats Solar, LLC worked closely with the County of Monterey to develop a rigorous Valley Fever program in connection with construction of the CFS Project, as required pursuant to the mitigation identified above. Those measures would continue to be implemented in connection with the Proposed Modification to ensure that potential Valley Fever impacts are minimized to less than significant consistent with the findings of the CFS Project EIR. Finally, the extent of construction-related activities associated with the Proposed Modification are considerably less than those associated with the CFS Project. As a result, the Proposed Modification is not anticipated to result in any additional effects related to Valley Fever beyond those previously identified in the CFS Project EIR.

d) No Impact. No substantial odors would be emitted from the Proposed Modification site based upon the type of construction activities and project operations proposed.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR related to air quality. The Proposed Modification would implement the following mitigation measures, consistent with the CFS Project EIR, to ensure that potential impacts associated with Valley Fever would be less than significant: *AQ-2(a) Dust Control Measures*, *AQ-2(b): Idling Restrictions*, *AQ-6(a) Valley Fever Management Plan*, *AQ-6(b) Additional Valley Fever Dust Suppression Measures*, *AQ-6(c) Monterey County Health Department Notification*, *AQ-6(d) Valley Fever Training Program and Safety Measures*, and *AQ-6(e) Valley Fever Information Handout*. In addition, the Proposed Modification would also implement all existing mitigation measures identified in the CFS Project EIR to ensure that impacts would be less than significant.

D. Biological Resources

EXISTING SETTING

The CFS Project EIR includes a comprehensive description of the existing setting for biological resources.³ As described in the CFS Project EIR, the CFS Project is in southeast Monterey County, California near the borders of Monterey, San Luis Obispo, Kings, and Fresno Counties. The Biological Study Area (“BSA”) for the CFS Project EIR consisted of approximately 5,033 acres, including an approximately 4,184-acre study area around the SDA (also referred to as Solar Generated Facility Area in the CFS Project EIR), an approximately 698-acre study area around the Access Road, and an approximately 155-acre study area around the Utility Corridor (of which four acres overlap with the Solar Generating Facility Area Study Area). The BSA extended beyond the footprint of the CFS Project and included the 2,120-acre SDA, which the CFS Project EIR assumed would be developed with utility-scale infrastructure improvements.

In 2020, Althouse and Meade prepared a supplemental, site-specific, technical memorandum evaluating the effects of the Proposed Modification as compared to the findings contained in the CFS Project EIR. That analysis described the existing vegetation community, botanical resources, wildlife resources, and other biological features within a defined study area. The study area, which consists of the Proposed Modification site with an approximate 100-foot buffer, is 43.1 acres. The study area is located entirely within the BSA described above. The following is a brief overview of results of Althouse and Meade’s supplemental analysis. For a complete description of the environmental setting for the Proposed Modification, please refer to Althouse and Meade’s technical memorandum, which was submitted to the County of Monterey as part of the minor permit application.

Vegetation Communities

The study area for the Proposed Modification is defined by five (5) different vegetation classifications/communities: California annual grassland (24.6 acres), wildflower field (9.0 acres), grassland riparian (1.3 acres), serpentine bunchgrass grassland (0.2 acres), and developed (8.0 acres). Each habitat type was field inspected and described by species composition and modified by the current CFS Project development footprint. Two (2) drainage features traverse the Proposed Modifications study area in association with the grassland riparian habitat.

Botanical Resources

Research on special status plant occurrences conducted within the study area determined that 40 special status plant species are known to occur in the region. Figure 5a of the biological technical memorandum shows the location of special status plants found within the study area and Figure 5b of the biological technical memorandum depicts the current special status plants mapped within a 5-mile radius of the study area by the California Natural Diversity Database (CNDDDB).

Potential Special Status Plant Species

Based on an analysis of known ecological requirements for the special status plant species reported from the region and the habitat conditions that were observed in the Proposed Modification study area, it was determined that a total of eleven special status plant species either occur or potentially occur in the study area. Plant species potential to occur was determined by which appropriate habitat and/or soils exist, an/or was historically known to occur onsite or in the vicinity. See the biological technical memorandum included

³ For a detailed description of the existing environmental setting, please refer to Section 4.4, Biological Resources, of the CFS Project Draft EIR.

in **Section 10** of the *Minor Permit Amendment Application for the CFS Project BESS Modification*, for more details about individual plant species with the potential to occur in the study area.

Preliminary 2020 Botanical Survey Results

Preliminary botanical surveys conducted by Althouse and Meade in March 2020 identified 37 species of vascular plant taxa and 2 lichens in the study area. See Table 4 on page 28 of the biological technical memorandum for a summary of these species. Native plant species account for approximately 75 percent of the study area, and preliminary flora and introduced species account for approximately 25 percent.

Wildlife Resources

Research on special status animal occurrences conducted within the study area determined 32 special status animal species are known to occur in the region.

Potential Special Status Animal Species

Based on an analysis of known ecological requirements for the special-status wildlife species reported or known from the region and the habitat conditions that were observed, a total of nine special status animal species potentially occur in the study area. Animal species potential was determined by which appropriate habitat and/or conditions exist, and/or historical occurrence in the vicinity. See the biological technical memorandum included in **Section 10** of the *Minor Permit Amendment Application for the CFS Project BESS Modification*, for more details about individual animal species with the potential to occur in the study area.

Wildlife Survey Results

A total of 17 wildlife taxa were observed within the study area during the January and March 2020 surveys performed by Althouse and Meade; 1 invertebrate, 2 reptiles, 9 birds, and 5 mammals. Table 6 on page 39 of the biological technical memorandum provides a list of the wildlife observed in the study area.

Habitat Connectivity and Wildlife Movement

Wildlife movement corridors are considered sensitive by resource and conservation agencies. While the study area does not function as a significant regional corridor, it is located in a grazed agricultural area that is generally contiguous with undeveloped land in all directions. Wildlife could move through the study area while traveling through the Proposed Modification and surrounding areas. The study area represents moderately suitable foraging and dispersal habitat for the San Joaquin kit fox. See the biological technical memorandum included in **Section 10** of the *Minor Permit Amendment Application for the CFS Project BESS Modification*, for more details about this potential habitat for San Joaquin kit fox.

CHECKLIST

| | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|--|---|--------------------------------|--|--|--------------------------|
| Would the project: | | | | | |
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|--|---|--------------------------------|--|--|--------------------------|
| Would the project: | | | | | |
| California Department of Fish and Game or U.S. Fish and Wildlife Service? | | | | | |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

The CFS Project EIR analyzed potential impacts to biological resources associated with the construction and operation of the CFS Project. The CFS Project EIR identified that construction would result in potentially significant construction-related impacts to species identified as candidate, sensitive or special status in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (see Impact B-1, Draft EIR, pg. 4.4-84 through 4.4-155; see also Final EIR, pg. 4-51 through 4-111). The CFS Project EIR also identified potential impacts to riparian habitat or other sensitive natural community identified in applicable plans, policies and regulations (see Impact B-2, Draft EIR, pg. 4.4-155 through 4.4-173). Mitigation measures were identified to ensure potential impacts to protected species and wildlife habitat would be reduced to less than significant levels. Impacts to wetlands and waters subject to federal jurisdiction, as defined by Section 404 of the Clean Water Act, were identified as potentially significant but mitigable (see Impact B-3, Draft EIR, pg. 4.4-173 through 4.4-180). In addition, the CFS Project EIR identified that the CFS Project could potentially interfere with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites (see Impact B-4, Draft EIR, pg. 4.4-180 through 4.4-188). The following is a brief summary of the findings of the CFS Project EIR related to biological resources.

- The CFS Project EIR identified a potentially significant impact due to potential adverse effects on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife

Service. However, the CFS Project EIR concluded that this impact would be reduced to less than significant with the implementation of the following mitigation measures:

- *B-1(a): Nested Compensatory Mitigation, B-1(b): Habitat Mitigation and Monitoring Plan, B-1(c): Pre-Construction Special Status Plant Surveys, B-1(d): Special Status Plant Species Avoidance and Minimization, B-1(e): Compensatory Mitigation for Special Status Plant Species, B-1(f): Pre-Construction Surveys for American Badger, B-1(g): American Badger Avoidance and Minimization, B-1(h): Pre-Construction Surveys for San Joaquin Kit Fox, B-1(i): San Joaquin Kit Fox Den Avoidance and Minimization Measures, B-1(j): Compensatory Habitat Mitigation for San Joaquin Kit Fox, B-1(k): Remove Wild Animal And Livestock Carcasses, B-1(l): Pre-Construction Surveys for Burrowing Owl, B-1(m): Burrowing Owl Avoidance and Minimization Measures, B-1(n): Compensatory Habitat Mitigation for Burrowing Owl, B-1(o): Pre-Construction Surveys for Coachwhip and Coast Horned Lizard, B-1(p): Wildlife-Friendly Fence Design, B-1(q): Bat Pre-Construction Surveys and Avoidance, B-1(r): Pre-Construction Surveys for Raptors and Other Special Status Bird Species, B-1(s): Special Status Bird Species Impact Avoidance and Minimization, B-1(t): Pre-Construction Surveys and Avoidance of Western Pond Turtle, B-1(u): Pre-Construction Surveys and Avoidance of Western Spadefoot, B-1(v): Compensatory Mitigation for Western Spadefoot Toad, B-1(w): California Tiger Salamander and California Red-Legged Frog Relocation Sites, MM B-1(x): California Red-Legged Frog Construction Barriers, B-1(y): Construction Timing, Pre-Construction Surveys and Avoidance Measures for California Red-Legged Frog, B-1(z): Compensatory Mitigation for California Red-Legged Frog, B-1(aa): California Tiger Salamander Construction Barriers, B-1(bb): California Tiger Salamander Daily Pre-activity Surveys, B-1(cc): Compensatory Mitigation for California Tiger Salamander, B-1(dd): Vernal Pool Branchiopod Avoidance and Mitigation, B-1(ee): Construction Biological Monitoring, B-1(ff): Special Status Animal Species General Avoidance Measures and Construction Best Management Practices, B-1(gg): Worker Environmental Awareness Program.* With the implementation of the aforementioned mitigation measures, potential impacts to sensitive plant and animal species would be reduced to a less than significant level.
- The CFS Project EIR identified a potentially significant impact due to impacts on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. However, this impact would be reduced to less than significant with the implementation of the following mitigation measures: *B-2(a): Valley Needlegrass Grassland and Wildflower Field Habitat Mitigation, B-2(b): Habitat Restoration and Revegetation Plan, B-2(c): Project Vegetation and Invasive Species Management Plan, B-2(d): Mixed Oak Woodland Avoidance and Minimization, B-2(e): Riparian/Stream Habitat Setbacks, B-2(f): Stream Channel Avoidance and Minimization, B-2(g): Directional Boring Avoidance and Minimization, B-2(h): Show streams and riparian habitat, and associated setbacks, on construction drawings, and B-2(i): Riparian/Stream Mitigation.* With implementation of these mitigation measures, the CFS Project EIR concluded that impacts would be less than significant.
- The CFS Project EIR identified a potentially significant impact due to impacts to federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. However, this impact would be reduced to less than significant with the implementation of the following mitigation measures: *B-3(a): Wetland Avoidance and Minimization, B-3(b): Well Placement Hydrology Study, B-3(c): Monitor Well Impacts to Wetlands, and B-3(d): Wetland Habitat Mitigation.* With implementation of the above mitigation measures, the CFS Project EIR concluded that impacts would be less than significant.
- The CFS Project EIR identified a potentially significant impact due to the interference with the movement of native residents or migratory fish or wildlife species or with established native

residents or migratory wildlife corridors or impede the use of native wildlife nursery sites. However, this impact would be reduced to less than significant with the implementation of the following mitigation measures: *B-4(a): Pronghorn Calving Ground Avoidance and Minimization* and *B-4(b): Pronghorn-Friendly Fence Design*. With the implementation of these mitigation measures, the CFS Project EIR concluded that impacts would be less than significant.

- The CFS Project EIR identified a potentially significant impact associated with the implementation of the CFS Project conflicting with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. However, this impact would be reduced to less than significant with the implementation of the following mitigation measure: *B-5(a): Oak/Riparian Tree Protection Zone* and *B-5(b): Oak/Riparian Tree Mitigation*. With the implementation of these mitigation measures, the CFS Project EIR concluded that impacts would be less than significant.
- The CFS Project EIR concluded that the CFS Project is not located within an area subject to an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or State HCP. Therefore, the CFS Project EIR concluded that impacts would be less than significant.

IMPACTS OF THE PROPOSED MODIFICATION

As discussed above, Althouse and Meade prepared a detailed biological technical memorandum evaluating the potential environmental effects associated with the Proposed Modification. As noted previously, the Proposed Modification is located entirely within the existing 2,120-acre SDA – therefore, the CFS Project EIR previously evaluated the potential environmental effects associated with the construction of utility-scale infrastructure within the area of the Proposed Modification. The following represents the results of the site-specific technical analysis prepared by Althouse and Meade which conclusively demonstrates that the Proposed Modification would not result in any additional environmental effects or an increase in the severity of a previously identified impact beyond the levels identified in the CFS Project EIR.

a) Less than Significant Impact with Mitigation: Althouse and Meade mapped three (3) sensitive plant species from the CFS Project EIR within the study area for the Proposed Modification. However, only one (1) sensitive plant species is located within the footprint because the Proposed Modification does not propose any impacts to hogwallow starfish and California macrophylla was delisted from their rare plant rank. Therefore, shining navarretia is the only sensitive plant species considered impacted by the Proposed Modification. In addition, 11 sensitive plant species have the potential to occur within the study area.

The CFS Project EIR considered direct and indirect impacts to special status plant species as significant but mitigable and was addressed through implementation of the following mitigation measures: *B-1(a) Nested Compensatory Mitigation*, *B-1(b) Habitat Mitigation and Monitoring Plan*, *B-1(c) Pre-construction Special Status Plant Surveys*, *B-1(d) Special Status Plant Species Avoidance and Minimization*, and *B-1(e) Compensatory Mitigation for Special Status Plant Species*. The implementation of these mitigation measures would reduce impacts to a less than significant level. Impacts associated with the Proposed Modification would be limited to the boundaries of the SDA and would be mitigated.

Therefore, the Proposed Modification would not result in any additional environmental effects to sensitive plant species beyond those previously identified in the CFS Project EIR or increase the severity of a previously identified impact. No additional mitigation measures are necessary.

Nine (9) sensitive animal species are considered to potentially utilize the study area for the Proposed Modification: the San Joaquin coachwip, golden eagle, burrowing owl, American badger, San Joaquin kit fox, and raptors and other special status birds including the prairie falcon, loggerhead shrike, grasshopper sparrow, and the tri-colored blackbird. Impacts to these species would be addressed through the implementation of Mitigation Measures *B-1(f) Pre-construction Surveys for American Badger*, *B-1(g) American Badger Avoidance and Minimization*, *B-1(h) Pre-construction Surveys for San Joaquin Kit Fox*,

B-1(i) San Joaquin Kit Fox Den Avoidance and Minimization Measures, B-1(j) Compensatory Habitat Mitigation for San Joaquin Kit Fox, B-1(k) Remove Wild Animal and Livestock Carcasses, B-1(l) Pre-construction Surveys for Burrowing Owl, B-1(m) Burrowing Owl Avoidance and Minimization Measures, B-1(n) Compensatory Habitat Mitigation for Burrowing owl, B-1(o) Pre-construction Surveys for Coachwhip, B-1(p) Wildlife Friendly Fence Design, B-1(r) Pre-construction Surveys for Raptors and Other Special Status Bird Species, B-1(s) Special Status Bird Species Impact Avoidance and Minimization, B-1(ee) Construction Biological Monitoring, B-1(ff) Special Status Animal Species General Avoidance Measures and Construction Best Management Practices, and B-1(gg) Worker Environmental Education Program. As a result, impacts associated with the Proposed Modification would be limited to the boundaries of the SDA and would be mitigated.

b, d) Less than Significant Impact with Mitigation: The Proposed Modification is anticipated to permanently disturb approximately 2.6 acres, comprised of 2.2 acres of California annual grassland and 0.4-acre of wildflower fields. The transmission line would result in minor areas of temporary disturbance to California annual grassland, wildflower fields, and riparian grassland habitats. Additional small areas of temporary disturbance are anticipated around the Tesla Megapack and substation modification areas in annual grassland and wildflower field habitats. No impacts are proposed to serpentine bunchgrass. Due to its abundance and non-native species composition, California annual grassland and riparian grassland are not considered a sensitive natural community. However, wildflower fields are considered a sensitive natural community because it supports a diverse native flora and special status plant species composition. The CFS Project EIR considered permanent and temporary impacts to wildflower fields significant but mitigable. These impacts would be reduced to a less than significant level through the incorporation of the following mitigation measures: *B-2(a) Wildflower Field Habitat Mitigation, B-2(b) Habitat Restoration and Revegetation Plan, and B-2(c) Project Vegetation and Invasive Species Management Plan.* Impacts associated with the Proposed Modification would be entirely within the boundaries of the area that was considered impacted in the CFS Project EIR analysis and would be mitigated to less than significant levels through the incorporation of existing mitigation.

Additionally, construction of the proposed substation expansion is not anticipated to result in any additional impacts to wildflower fields beyond those previously identified in the CFS EIR. As noted above, the Proposed Modification, including the substation expansion, is located entirely in the SDA. The CFS Project EIR accounted for permanent impacts to wildflower fields via Mitigation Measure *B-2(a) Wildflower Field Habitat Mitigation.* The CFS Project EIR had a 394-acre mitigation obligation for wildflower field impacts (1:1 ratio). The CFS Project previously compensated for impacts to wildflower fields through the permanent conservation of 394 acres off-site. This 394-acre mitigation obligation included impacts associated with the development of the area of the Proposed Modification. As a result, the 0.4-acres of permanent impact to wildflower fields from the Proposed Modification, which are entirely within the SDA, have already been fully mitigated pursuant to mitigation measure *B-2(a) Wildflower Field Habitat Mitigation;* no additional compensatory mitigation is required. Similarly, the 394-acre mitigation obligation includes an excess of 10 acres of Valley Needlegrass (also a sensitive habitat). Thus 0.4-acre mitigation obligation for the Proposed Modification's permanent impacts to wildflower fields is compensated through preservation of the 10-acre excess of sensitive habitat located offsite in the Conservation Lands. Impacts created by the overhead/underground transmission line would result in temporary impacts to small areas of wildflower fields. However, this area was considered temporarily impacted, and mitigated for via Mitigation Measures *B-2(b) Habitat Restoration and Revegetation Plan and B-2(c) Project Vegetation and Invasive Species Management Plan.*

Therefore, the Proposed Modification would not result in any additional environmental effect to wildflower fields beyond those previously identified in the CFS Project EIR or increase the severity of a previously identified impact. No additional mitigation measures are necessary.

c) Less than Significant Impact with Mitigation: Proposed Modification construction activities would involve trenching and boring underground transmission lines that would temporarily impact an ephemeral stream that is a non-wetland waters of the U.S. Applicable federal and state agency permits and amendments would be acquired.

The CFS Project EIR considered temporary impacts to ephemeral streams for crossing used only for construction, significant but mitigable and was addressed through Mitigation Measures B-2(b) *Habitat Restoration and Revegetation Plan*, B-2(c) *Project Vegetation and Invasive Species Management Plan*, and B-2(g) *Directional Boring Avoidance and Minimization* to less than significant levels. Impacts associated with the Proposed Modification would be entirely within the boundaries of the area that was considered impacted in the CFS Project EIR analysis and would be mitigated.

e, f) Less than Significant Impact: With the implementation of the mitigation measures included above, the Proposed Modification would not conflict with local policies protecting biological resources. No tree removal would be associated with the Proposed Modification. Additionally, there are not any approved local, regional, or state habitat conservation plans within the area of the Proposed Modification site.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR related to biological resources. The Proposed Modification would implement the following mitigation measures, consistent with the CFS Project EIR, to ensure that potential impacts would be less than significant: B-1(a) *Nested Compensatory Mitigation*, B-1(b) *Habitat Mitigation and Monitoring Plan*, B-1(c) *Pre-construction Special Status Plant Surveys*, B-1(d) *Special Status Plant Species Avoidance and Minimization*, B-1(e) *Compensatory Mitigation for Special Status Plant Species*, B-1(f) *Pre-construction Surveys for American Badger*, B-1(g) *American Badger Avoidance and Minimization*, B-1(h) *Pre-construction Surveys for San Joaquin Kit Fox*, B-1(i) *San Joaquin Kit Fox Den Avoidance and Minimization Measures*, B-1(j) *Compensatory Habitat Mitigation for San Joaquin Kit Fox*, B-1(k) *Remove Wild Animal and Livestock Carcasses*, B-1(l) *Pre-construction Surveys for Burrowing Owl*, B-1(m) *Burrowing Owl Avoidance and Minimization Measures*, B-1(n) *Compensatory Habitat Mitigation for Burrowing owl*, B-1(o) *Pre-construction Surveys for Coachwhip*, B-1(p) *Wildlife Friendly Fence Design*, B-1(r) *Pre-construction Surveys for Raptors and Other Special Status Bird Species*, B-1(s) *Special Status Bird Species Impact Avoidance and Minimization*, B-1(ee) *Construction Biological Monitoring*, B-1(ff) *Special Status Animal Species General Avoidance Measures and Construction Best Management Practices*, B-1(gg) *Worker Environmental Education Program*, B-2(a) *Wildflower Field Habitat Mitigation*, B-2(b) *Habitat Restoration and Revegetation Plan*, B-2(c) *Project Vegetation and Invasive Species Management Plan*, and B-2(g) *Directional Boring Avoidance and Minimization*. The implementation of existing mitigation measures would ensure that potential impacts associated with the Proposed Modification would be consistent with the findings of the CFS Project EIR.

E. Cultural Resources

EXISTING SETTING

The CFS Project EIR includes a comprehensive description of the existing setting for cultural resources.⁴ The following discussion provides additional, site-specific, information related to the area of the Proposed Modification based on the results of a technical memorandum prepared by Applied Earthworks (February 2020). As noted previously, the Proposed Modification is in an area that was previously evaluated as part of the CFS Project EIR. For a more detailed description of the existing environmental setting, as well as survey methodology and results, please refer to the Cultural Resources Technical Memorandum in **Section 11** of the *Minor Permit Amendment Application for the CFS Project BESS Modification*.

The CFS Project is within the Coast Ranges geomorphic province⁵ of California. The oldest known rocks in the Coast Ranges consist of the Franciscan Assemblage basement complex and the Salinian Block crystalline basement rocks. The area of the present-day Coast Ranges was covered by marine waters through the Mesozoic and into the Cenozoic. During the Late Miocene to the Late Pliocene, an orogenic (i.e., mountain-building) episode occurred in the vicinity of the present-day Coast Ranges, resulting in their uplift above sea level. Subsequently, from the Late Pliocene to Pleistocene, extensive deposits of terrestrial material, including alluvial fans and fluvial sediments, were deposited in the southern Coast Ranges (Norris and Webb 1976).

The CFS Project lies in a rugged and remote interior portion of California that has been virtually unstudied archaeologically and is thus poorly understood. Applied Earthwork's subsurface investigations for the CFS Project found evidence of prehistoric human occupation dating from the early Holocene into the historic period, with the bulk of occupation in the Middle Archaic (approximately 5000–600 calibrated years [cal.] B.C.) (Price et al. 2013). Prehistoric site types in the area range from habitation and tool manufacturing locations to quarries and small lithic scatters. Due to the abundance of Franciscan and Temblor chert tool stone in the immediate vicinity, along with adequate natural resources and access to water, prehistoric use of this region is varied and complex.

The Proposed Modification area falls principally into the territory of the Salinan group, although two other native groups, the Tachi Yokuts and Northern Chumash, also have ties to the region (Price et al. 2013). During the Mission Period, Spanish use of the Cholame Valley was much less intensive than in coastal areas of Monterey and San Luis Obispo counties. Rather, this region was a passage to inland areas such as the Carrizo Plain and the Central Valley that served as refuge for those natives who escaped from mission oversight (Price et al. 2013).

Applied Earthworks conducted an in-house record search of its extensive California Flats data and site records on January 13, 2020. The in-house record search focused on the Proposed Modification and a 0.25-mile buffer. In addition, a pedestrian archaeological survey of the entire Proposed Modification study area was completed on January 15, 2020. The in-house records search identified five previous cultural resource studies conducted in association with the CFS Project that cover the Proposed Modification. Of those five cultural resource studies one falls within the Proposed Modification study area 0.25-mile search buffer, and one covers the whole CFS Project area.

⁴ For a detailed description of the existing environmental setting, please refer to Section 4.5, Cultural and Paleontological Resources, of the CFS Project Draft EIR.

⁵ A geomorphic province is a region of unique topography and geology that is readily distinguished from other regions based on its landforms and diastrophic history.

CHECKLIST

| Would the project: | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|--|---|--------------------------------|--|--|--------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Disturb any human remains, including those interred outside of dedicated cemeteries? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

The CFS Project EIR identified that the CFS Project could potentially affect cultural and paleontological resources. More specifically, construction could potentially affect National Register of Historic Places (“NRHP”)/California Register of Historic Resources (“CRHR”)-eligible prehistoric or historic archaeological resources (see Impact CR-1, Draft EIR, pg. 4.5-35 through 4.5-38; see also Final EIR, pg. 4-115 through 4-116), previously unidentified cultural resources (See Impact CR-2, Draft EIR, pg. 4.5-38 through 4.5-39), previously unidentified human remains (see Impact CR-3, Draft EIR, pg. 4.5-39 through 4.5-40), and paleontological resources (See Impact CR-4, Draft EIR, pg. 4.5-40 through 4.5-41). The following is a brief overview of the findings of the CFS Project EIR related to cultural resources.

- The CFS Project EIR concluded that the construction and eventual decommissioning of the CFS Project could result in a potentially significant impact to NRHP/CRHR-eligible prehistoric or historic archaeological resources. However, this impact would be reduced to less than significant with the implementation of the following mitigation measures: *CR-1(a): Archaeological Site Avoidance*, *CR-1(b): Site Capping and Data Indexing*, *CR-1(c): Data Recovery Excavation*, *CR-1(d): Archaeological Resource Worker Environmental Awareness Program*, *CR-1(e): Archaeological Resource Construction Monitoring*, and *CR-1(f): Native American Construction Monitoring*. The CFS Project EIR concluded that the implementation of these mitigation measures would ensure that impacts would be less than significant.
- The CFS Project EIR identified that the CFS Project could result in a potentially significant impact to previously unidentified cultural resources. However, this impact would be reduced to less than significant with the implementation of the following mitigation measure: *CR-2: Previously Unidentified Archaeological Resources*. The CFS Project EIR concluded that the implementation of these mitigation measures would ensure that impacts would be less than significant.
- The CFS Project EIR stated that the CFS Project would involve surface excavation, which has the potential to unearth or adversely impact previously unidentified human remains. The CFS Project EIR identified that the compliance with the requirements of Sec. 7050.5 of the Health and Safety Code for the treatment and disposition of human remains would ensure that any potential impacts due to the discovery of previously unidentified human remains would be less than significant.
- The CFS Project EIR identified that the CFS Project would involve surface excavation, which could unearth previously unidentified paleontological resources. However, this impact would be reduced to less than significant with the implementation of the following mitigation measures: *CR-4(a): Paleontological Resources Mitigation Plan* and *CR-4(b): Paleontological Resources Construction*

Monitoring. The CFS Project EIR concluded that the implementation of these mitigation measures would ensure that impacts would be less than significant.

IMPACTS OF THE PROPOSED MODIFICATION

Applied Earthworks prepared a detailed technical memorandum evaluating the potential environmental effects associated with the Proposed Modification. As noted previously, the Proposed Modification is located entirely within the existing 2,120-acre SDA – therefore, the CFS Project EIR previously evaluated the potential environmental effects associated with the construction of utility-scale infrastructure within the area of the Proposed Modification. The following represents the results of the site-specific technical analysis prepared by Applied Earthworks which conclusively demonstrates that the Proposed Modification would not result in any additional environmental effects or an increase in the severity of a previously identified significant impact beyond the levels identified in the CFS Project EIR.

a, b) Less than Significant Impact with Mitigation: Ground disturbing activities could potentially unearth unknown archaeological resources. Background research found two previously recorded resources within 0.25-miles search radius of the Proposed Modification site and no previously recorded resources within the study area. One previous study has occurred within the 0.25-mile search radius and one study has covered the full CFS Project area/Area of Potential Effect (APE), including the location of the Proposed Modification. Overall, the Proposed Modification is located within the SDA, which was previously analyzed and disturbed as part of the original CFS Project. As a result, Applied Earthworks concluded that the Proposed Modification would not result in any additional impacts or effects beyond those previously identified in the CFS Project EIR or in the Memorandum of Agreement (MOA) and Historic Properties Treatment Plan (HPTP) for Section 106 compliance. Moreover, the implementation of existing mitigation measures identified in the CFS Project EIR, including *CR-1(a) Archaeological Site Avoidance, CR-1(b) Site Capping and Data Indexing, CR-1(c) Data Recovery Excavation, CR-1(d) Archaeological Resource Worker Environmental Awareness, CR-1(e) Archaeological Resource Construction Monitoring, CR-1(f) Native American Construction Monitoring, and CR-2 Previously Unidentified Archaeological Resources* would ensure that impacts would remain less than significant. As a result, the Proposed Modification would not result in any additional environmental effects beyond those identified in the CFS Project EIR.

c) Less than Significant Impact: No cemeteries are known to occur within or adjacent to the Proposed Modification and no evidence of a cemetery or burial areas was identified within or adjacent to the Proposed Modification area during the data research and fieldwork performed as part of the CFS Project EIR. However, consistent with the findings of the CFS Project EIR, excavation and soil removal of any kind, irrespective of depth, could potentially affect previously unidentified human remains. Compliance with Health and Safety Code Sec. 7050.5 would ensure that potential impacts would be less than significant.

California Health and Safety Code Sec. 7050.5 requires that:

“in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site, or any nearby area reasonably suspected to overlay adjacent remains, until the County Coroner has examined the remains. If the Coroner determines the remains to be those of a Native American, or has reason to believe that they are those of a Native American, the Coroner shall contact by telephone within 24 hours the NAHC. In addition, any person who mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor.”

Compliance with these existing requirements would ensure that impacts would be less than significant.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR related to cultural resources. The Proposed Modification would implement the following mitigation measures, consistent with the CFS Project EIR, to ensure that potential impacts would be less than significant: *CR-1(a) Archaeological Site Avoidance, CR-1(b) Site Capping and Data Indexing, CR-1(c) Data Recovery Excavation, CR-1(d) Archaeological Resource Worker Environmental Awareness, CR-1(e) Archaeological Resource Construction Monitoring, CR-1(f) Native American Construction Monitoring, and CR-2 Previously Unidentified Archaeological Resources Mitigation Measures CR-1: Stop Work If Buried Cultural Deposits are Encountered during Construction; and CR-2: Stop Work If Human Remains are Encountered during Construction Activities.* The implementation of existing mitigation measures would ensure that potential impacts associated with the Proposed Modification would be consistent with the findings of the CFS Project EIR.

F. Energy

EXISTING SETTING

Gas and electric service in the region is provided by Pacific Gas and Electric Company (“PG&E”). PG&E operates a grid distribution system that transmits electricity with a vast network of transmission and distribution lines throughout the service area to the users.

CHECKLIST

| Would the project: | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|---|---|--------------------------------|--|--|--------------------------|
| a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with or obstruct state or local plan for renewable energy or energy efficiency? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

The CFS Project EIR did not specifically evaluate energy related effects as a separate CEQA section because at the time the County of Monterey prepared the CFS Project EIR the CEQA Guidelines had not been updated to require a separate evaluation of energy resources. The CFS Project EIR did, however, evaluate potential energy related impacts within the context of potential impacts related to greenhouse gas emissions and climate change. Moreover, it is also important to recognize that while the CFS Project EIR did not directly evaluate potential energy related effects as a separate topical CEQA item, the CFS Project consists of a renewable energy facility that is intended to increase the availability of renewable energy sources. As a result, the CFS Project, by its very nature, is intended to improve energy availability and would not result in the wasteful, uneconomical, or unnecessary usage of energy.

- The CFS Project EIR concluded that the CFS Project would not result in the wasteful, uneconomical, and unnecessary use of energy.

IMPACTS OF THE PROPOSED MODIFICATION

a, b) Less than Significant Impact: The Proposed Modification would not result in a potential significant environmental impact due to the wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation. Moreover, the Proposed Modification would not result in a potential significant impact due to potential conflicts with state or local plans for renewable energy or energy efficiency. The Proposed Modification would improve the reliability of the CFS Project by modifying the existing facility to allow energy storage on-site. Energy storage is an important component of energy conservation because it allows renewable energy sources to store power during periods when demand is low and subsequently provide clean, reliable, sources of energy during peak demand. Accordingly, the Proposed Modification does not entail the wasteful or inefficient use of energy, but rather ensures the reliability of renewable energy production. Moreover, given the nature of the modification it is also not anticipated to conflict with any goals related to renewable energy production or energy efficiency. This represents a less than significant impact.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR related to energy consumption.

G. Geology and Soils

EXISTING SETTING

The CFS Project EIR includes a detailed description of the existing environmental setting for geology and soils.⁶ As discussed in the CFS Project EIR, Kleinfelder, Inc. prepared a Preliminary Geotechnical & Geologic Hazard Evaluation for the CFS Project in 2012, as well as an Addendum to the Preliminary Geotechnical & Geologic Hazard Evaluation in 2013. Kleinfelder's analysis described the existing geotechnical and geologic setting and evaluated the potential geologic related impacts associated with the CFS Project. That analysis covered the entire CFS Project site, including the 2,120-acre SDA. The geotechnical analyses described the CFS Project site as consisting of extensive alluvial terraces forming wide level planes (less than 10% slope), situated between steeply rolling hills to the northeast and southwest. The SDA, which includes the site of the Proposed Modification, is predominantly flat land that gently slopes to the west and is transected by several southwestward seasonally flowing drainages and the perennial Cottonwood Creek. Sims (1988) mapped the SDA as Pleistocene alluvial fan deposits (composed of silt, sand, and gravel) underlain by Tertiary Monterey and Temblor formations. These formations are mainly composed of sandstone, claystone, shale and siltstone.

CHECKLIST

| Would the project: | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|--|---|--------------------------------|--|--|-------------------------------------|
| a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv) Landslides? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

⁶ Please refer to Section 4.6, Geology and Soils, of the CFS Project Draft EIR.

| | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|---|---|--------------------------------|--|--|--------------------------|
| Would the project: | | | | | |
| systems where sewers are not available for the disposal of wastewater? | | | | | |
| f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

The CFS Project EIR identified that construction of the CFS Project could result in potential impacts due to seismic hazards (see Impact GEO-1, Draft EIR, pg. 4.6-14 through 4.6-16), landslide hazards (see Impact GEO-2, Draft EIR, pg. 4.6-16 through 4.6-17; see also Final EIR, pg. 4-116 through 4-119), erosion (see Impact GEO-3, Draft EIR, Pg. 4.6-17 through 4.6-19), expansive soils (see Impact GEO-4, Draft EIR, pg. 4.6-19 through 4.6-20), and wastewater (i.e., septic disposal) (see Impact GEO-5, Draft EIR, pg. 4.6-20 through 4.6-22). Construction related impacts would be limited to temporary increases in erosion due to ground-disturbing activities. The following is a brief overview of the findings of the CFS Project EIR related to geology and soils.

- The CFS Project EIR identified that the CFS Project could be exposed to potential seismically induced hazards due to the proximity of the site to existing faults, including the San Andreas Fault, the Jack Ranch Fault, and the Gold Hill Thrust Fault. The CFS Project EIR identified that the active San Andreas Fault could expose people or structures to potential adverse effects involving surface rupture hazards, strong seismic shaking, or seismic-related ground failure, including liquefaction. The CFS Project EIR, however, concluded that these impacts would be less than significant, and no mitigation was warranted.
- The CFS Project EIR identified a potentially significant impact related to moderate landslide potential in the utility corridor due to its steep slopes. In addition, the site contains several deeply incised channels that are subject to moderate landslide potential. Landslides have the potential to damage and destroy roadways, structures and other improvements as well as alter or block drainage channels, causing further damage and erosion. However, this impact would be reduced to less than significant with the implementation of the following mitigation measure: *GEO-2: Landslide Avoidance and Hazard Minimization*.
- The CFS Project EIR did not identify any significant impacts due to soil erosion or the loss of topsoil. Moreover, compliance with the NPDES construction stormwater program and implementation of measures promoting infiltration, as identified in a final, design-level drainage analysis, would minimize erosion. Compliance with Monterey County requirements for erosion control and grading would also minimize the extent of potential erosion-related effects. Compliance with the recommendations of a design-level drainage analysis, and compliance with the project's SWPPP would ensure that potential impacts would be less than significant.
- The CFS Project EIR did not identify any significant impacts associated with expansive soils, which could expose people or structures to potential adverse effects. The CFS Project EIR concluded that compliance with the California Building Code and Monterey County Grading Ordinance would ensure that potential impacts would be less than significant.
- The CFS Project EIR did not identify any significant impacts associated with the improper septic system design resulting in inadequate infiltration, ground or surface water contamination, and/or other health hazards. The CFS Project EIR identified that the CFS Project would generate a relatively minor amount of wastewater in connection with the operation of the O&M facility. Therefore, the CFS Project EIR concluded that this impact would be less than significant.

- The CFS Project EIR discussed the impacts related to paleontological resources and sites with unique geological features in Section 4.5, Cultural and Paleontological Resources. Although unlikely, these impacts were related to construction activities involving surface excavation that have the potential to unearth or impact previously unidentified paleontological resources. The CFS Project EIR concluded that these impacts would be reduced to less than significant with the implementation of the following mitigation measures: *Mitigation Measure CR-4(a): Paleontological Resource Mitigation Plan and Mitigation Measure CR-4(b): Paleontological Resource Construction Monitoring.*

IMPACTS OF THE PROPOSED MODIFICATION

The Proposed Modification is located entirely within the existing 2,120-acre SDA, which was proposed to be improved with utility-scale infrastructure as part of the CFS Project. As a result, the CFS Project EIR evaluated the potential geologic and soils related impacts associated with the construction of infrastructure within the area of the Proposed Modification. Moreover, the underlying technical analysis prepared by Kleinfelder also evaluated the potential geologic and geotechnical hazards associated with the development of the site with utility-scale infrastructure. Although that analysis did not specifically contemplate the Proposed Modification, Kleinfelder's overall conclusions and findings are nevertheless relevant and applicable to the Proposed Modification. As described below, the Proposed Modification would not result in any additional environmental effects or increase the severity of a previously identified significant impact beyond those identified in the CFS Project EIR.

a, c) Less than Significant Impact: The CFS Project site is located in a seismically active region and therefore it is reasonable to expect that the Proposed Modification would be exposed to significant seismic shaking during the design lifetime of the facility. This could result in seismically induced liquefaction and landslide hazards, as well as other related seismically induced hazards. Potential impacts would be addressed through compliance with the applicable requirements of the California Building Code ("CBC") and standard County of Monterey policies, which require site specific geotechnical analysis. Surface rupture and strong seismic ground shaking can also lead to ground failure near the fault, including from liquefaction. According to the Preliminary Geotechnical & Geologic Hazard Evaluation (Kleinfelder, July 2012), the aged, consolidated soils on the CFS Project site limit the potential for liquefaction despite the presence of shallow groundwater. Consistent with the recommendations of the Preliminary Geotechnical & Geologic Hazard Evaluation, additional site-specific geotechnical borings should be conducted as part of the design-level geotechnical analysis (Kleinfelder, July 2012). The final design of the Proposed Modification would be required to comply with the recommendations of a design-level geotechnical analysis which will ensure that all potential geologic related hazards would be less than significant.

b) Less than Significant Impact: The Proposed Modification could result in a localized increase in soil erosion or loss of topsoil due to construction-related activities. However, the Proposed Modification is not located in an area that is identified as having a high erosion hazard (see Figure 4.6.3 in the CFS Project Draft EIR). In fact, the Proposed Modification is located in an area with a low erosion hazard level. Nevertheless, construction activities could result in localized erosion. More specifically, grading activities and the removal of vegetation during construction could result in erosion. Areas of grading and surface disturbance could become susceptible to wind and water erosion that could result in the loss of soil. The CFS Project EIR identified that the implementation of a NPDES-compliant Stormwater Pollution Prevention Plan ("SWPPP"), as well as mitigation measures *AQ-2(a): Dust Control Measures* and *BIO-2(b): Revegetation* would ensure that temporary erosion related impacts would be minimized. Moreover, the CFS Project EIR also identified that compliance with existing Monterey County requirements, including Monterey County Code Chapters 16.08 (Grading) and 16.12 (Erosion Control) would ensure that impacts would be minimized. These Ordinances require dust suppression measures, re-vegetating temporarily disturbed areas, and minimizing areas of disturbance to only those required for construction, and the

preparation and approval of an Erosion Control Plan and Grading Plan prior to construction. The Proposed Modification would be required to comply with these requirements thereby ensuring that the Proposed Modification would not result in any additional impacts beyond those previously identified in the CFS Project EIR. In addition, it is also worth noting that the Proposed Modification would result in considerably less ground disturbance than the CFS Project. As a result, potential impacts associated with the Proposed Modification would be less than those identified in the CFS Project EIR.

d) Less than Significant Impact: The Proposed Modification would not create a substantial direct or indirect risk of life or property due to being located on expansive soils. As identified in the CFS Project EIR, expansive soils have a clay content and mineralogy that renders them susceptible to volume increase upon absorption of water and volume decrease upon drying. Repeated cycles of wetting and drying of expansive soils can cause severe distress to roadways, foundations, and concrete flatwork. The CFS Project EIR identified that some of the on-site soils are expansive. Structures and facilities constructed on these soils could be exposed to hazards related to expansive soils. As a result, the Proposed Modification could be exposed to hazards related to expansive soils consistent with the findings of the CFS Project EIR. These impacts would not, however, be significant. As identified in the CFS Project EIR, these impacts would be addressed through the compliance with the applicable requirements of the California Building Code (CBC) and standard County of Monterey policies, which require site-specific geotechnical analysis. Moreover, as noted throughout this analysis, the Proposed Modification is located within the existing 2,120-acre SDA, which was previously evaluated by the County of Monterey. Compliance with existing regularly requirements, including the recommendations of a design-level geotechnical analysis, would ensure that the Proposed Modification would not result in any additional environmental effects beyond those identified in the CFS Project EIR. This represents a less than significant impact.

e) No Impact: The Proposed Modification does not involve septic or alternative wastewater disposal systems. No impact would result from the Proposed Modification.

f) Less than Significant Impact with Mitigation: The paleontological sensitivity assessment identified three (3) geological formations within the BESS study area. Excavations and grading that extends beyond the depth of surface soils (typically 3 to 5 feet) could disturb geologic units with high paleontological sensitivity. This could potentially affect paleontological resources. However, consistent with the findings of the CFS Project EIR, these impacts would be reduced to less than significant with the implementation of the following mitigation measures: *CR-4(a): Paleontological Resource Mitigation Plan* and *CR-4(b): Paleontological Resource Construction Monitoring*.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR. The Proposed Modification would implement the following mitigation measures, consistent with the CFS Project EIR, to ensure that potential impacts would be less than significant: Mitigation Measures *GEO-2: Landslide Avoidance and Hazard Minimization*, *CR-4(a): Paleontological Resource Mitigation Plan* and, *CR-4(b): Paleontological Resource Construction Monitoring*. The implementation of existing mitigation measures would ensure that potential impacts associated with the Proposed Modification would be consistent with the findings of the CFS Project EIR.

H. Greenhouse Gas Emissions

EXISTING SETTING

The CFS Project EIR includes a detailed description of the existing environmental setting related to greenhouse gas emissions.⁷ As discussed in the CFS Project EIR, global temperatures are affected by naturally occurring and anthropogenic-generated atmospheric gases, such as water vapor, carbon dioxide, methane, and nitrous oxide (Intergovernmental Panel on Climate Change, 2007). Gases that trap heat in the atmosphere are called greenhouse gases (“GHGs”). Solar radiation enters the earth’s atmosphere from space, and a portion of the radiation is absorbed at the surface. The earth emits this radiation back toward space as infrared radiation. Greenhouse gases, which are mostly transparent to incoming solar radiation, are effective in absorbing infrared radiation and redirecting some of this back to the earth’s surface. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This is known as the greenhouse effect. The greenhouse effect helps maintain a habitable climate. Emissions of GHGs from human activities, such as electricity production, motor vehicle use, and agriculture, are elevating the concentration of GHGs in the atmosphere, and are reported to have led to a trend of unnatural warming of the earth’s natural climate, known as global warming or global climate change.

Climate change is a cumulative impact; a project contributes to this impact through its incremental contribution of GHG emissions combined with the cumulative increase of all other sources of GHGs. The MBARD’s GHG threshold is defined in terms of carbon dioxide equivalent (CO₂e), a metric that accounts for the emissions from various GHGs based on their global warming potential. If annual emissions of GHGs exceed these threshold levels, the Proposed Modification would result in a cumulatively considerable contribution of GHG emissions and must implement mitigation measures.

CHECKLIST

| | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|--|---|--------------------------------|--|--|-------------------------------------|
| Would the project: | | | | | |
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

The CFS Project EIR concluded that the CFS Project would not result in any significant adverse greenhouse gas (“GHG”) emissions or climate change related effects. In fact, the CFS Project EIR concluded that the CFS Project would have a beneficial cumulative effect due to the displacement of GHG emissions by creating a new source of renewable energy (see Impact GHG-1, Draft EIR, pg. 4.7-12 through 4.7-15; see also Ambient 2015; see also Final EIR, pg. 4-119 through 4-121). In addition, the CFS Project would not

⁷ Please refer to Section 4.7, Greenhouse Gas Emissions/Climate Change, of the CFS Project Draft EIR for more information.

conflict with any State GHG reduction goals, or any applicable plan, policy, or regulation adopted for the purposes of reducing GHG emissions (See Impact GHG-2, Draft EIR, pg. 4.7-15 through 4.7-17). The following is a brief overview of the findings of the CFS Project EIR related to GHG emissions. For more detailed information, please refer to Section 4.7, Greenhouse Gas Emissions/Climate Change, of the CFS Project EIR.

- The CFS Project EIR identified that the CFS Project would introduce a renewable energy source, which would displace emissions that would otherwise occur at traditional natural gas and coal-fired power plants. Overall, the CFS Project would result in a net reduction in long-term regional GHG emissions, making the impacts from the project beneficial.
- The CFS Project EIR did not identify any significant impacts associated with a conflict with State GHG reduction goals, or any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. The project would help attain, and would not hinder, Monterey County and the State's GHG reduction goals, thereby resulting in a less than significant impact related to compliance with GHG reduction plans.

IMPACTS OF THE PROPOSED MODIFICATION

As discussed above, Ambient Air Quality and Noise Consultants prepared a detailed technical memorandum evaluating the potential environmental effects associated with the Proposed Modification. The following represents the results of the site-specific technical analysis prepared by Ambient which conclusively demonstrates that the Proposed Modification would not result in any additional environmental effects or an increase in the severity of a previously identified impact beyond the levels identified in the CFS Project EIR.

a) Less Than Significant Impact: The MBARD has determined that if a project emits less than 10,000 metric tons per year (MT/yr) CO₂e that its impact will be less than significant. This calculation is made by combining the estimated greenhouse gas emissions generated by construction, amortized over a 30-year period, with the estimated annual GHG emissions resulting from operation of the project.

Construction of the Proposed Modification would result in a one-time emission total of up to 376.44 MT/yr of CO₂e during the four to seven-month construction period; therefore, the annual amortized GHG emissions for the construction phase would be 12.55 MT/year (Ambient, 2020). The estimated annual greenhouse gas emissions generated by operation of the Proposed Modification would be approximately 1,246.41 MT/year. Therefore, the estimated annual emissions for the entire project would be 1,258.96 MT/year. This falls well below the threshold of 10,000 MT/year and is therefore considered to be less than significant. Moreover, it is also important to recognize that the Proposed Modification would improve the reliability of the CFS Project by modifying the existing facility to allow energy generated during low-peak periods to be stored on-site and subsequently distribute energy during peak period demand. This would have the effect of making clean, renewable, energy available during peak period demand when energy consumption is highest and solar produced energy is typically not available. Moreover, as noted elsewhere in this analysis, energy storage is an important component of energy conservation and would help achieve GHG emissions reduction goals by ensuring that renewable energy is available during peak period demand.

b) No Impact: The Proposed Modification would not conflict with any plan, policies, or regulations adopted for the purpose of reducing greenhouse gas emissions. The Proposed Modification is part of the CFS Project, which would have a beneficial impact to greenhouse gas emissions as a whole by providing a source of renewable energy.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR. The Proposed Modification would have an overall beneficial effect by increasing the availability of renewable energy during peak period demand when solar generated energy is typically not available.

I. Hazards and Hazardous Materials

EXISTING SETTING

The CFS Project EIR includes a detailed description of the existing environmental setting for hazardous material.⁸ As discussed in the CFS Project EIR, there are no documented releases of hazardous materials or hazardous wastes within one-half mile of the CFS Project site (DTSC, 2013; SWRCB, 2013). The CFS Project EIR did not identify any open or closed investigations for spills or releases, including leaking underground storage tanks, land disposal sites, military sites or other cleanup sites (SWRCB, 2013). The closest recorded hazardous materials site is located 5.6 miles to the south of the CFS Project site, at a lower elevation and down gradient of the project site, at the intersection of SR 41 and SR 46 in San Luis Obispo County (SWRCB, 2013). There have been no documented releases of hazardous materials on the project site or within one mile of the site per the Envirostor or Geotracker databases (DTSC, 2013; SWRCB, 2013). Additionally, the CFS Project site is not within one-quarter mile of an existing or proposed school. There is no public airport within two miles of the project site, and no private air strips are within the vicinity.

CHECKLIST

| | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|---|---|--------------------------------|--|--|-------------------------------------|
| Would the project: | | | | | |
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

⁸ Please refer to Section 4.8, Hazards and Hazardous Materials, of the CFS Project Draft EIR for more information.

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

According to the CFS Project EIR, construction of the CFS Project would not occur in an area historically used for croplands and impacts related to exposure to agricultural chemicals would be less than significant (see Impact HAZ-1, Draft EIR, pg. 4.8-14 through 4.8-15; see also Final EIR, pg. 4-121 through 4-122). In addition, the CFS Project EIR also concluded that the CFS Project would not result in a significant impact due to the use, storage, and/or transport of hazardous materials (see Impact HAZ-2, Draft EIR, pg. 4.8-15 through 4.8-17). The CFS Project could result in the accidental release or pose a potential risk of hazard due to the accidental release of a hazardous material due to the potential presence of existing public utilities that transverse the site, as well as several existing abandoned oil and natural gas wells that are located on the site. These impacts would be reduced through the implementation of mitigation contained in the CFS Project EIR. Moreover, the CFS Project EIR also identified potential wildland fire hazards and identified mitigation to lessen the extent of those impacts to a less than significant level (see Impact HAZ-4, Draft EIR, pg. 4.8-18 through 4.8-20). The following is a brief overview of the findings of the CFS Project EIR related to hazards and hazardous conditions.

- The CFS Project EIR did not identify any significant impacts related to exposure to agricultural chemicals in on-site soils. The CFS Project would not occur in an area historically used for croplands. Furthermore, the CFS project EIR concluded that the likelihood that construction workers, operational staff, and/or adjacent sensitive receptors could be exposed to residual agricultural chemicals would be unlikely; therefore, impacts would be less than significant.
- The CFS Project EIR did not identify any significant impacts associated with use, storage, and/or transport of hazardous materials. The CFS Project EIR identified that compliance with existing laws and regulations governing the transport, use and storage of hazardous materials and wastes as well as use of appropriately trained employees for PV module installation would ensure that impacts would be less than significant.
- The CFS Project EIR identified a potentially significant impact associated with the release of hazardous materials into the environment. Although no public utilities provide services to the project site, an unknown number of public utilities traverse the site, which may pose a risk of upset or accident conditions leading to the release of hazardous materials. The CFS Project EIR concluded that this impact would be reduced to less than significant with the implementation of the following mitigation measure: *HAZ-3: Locate Underground Utilities*.
- The CFS Project EIR identified potential hazards due to the site's location in a high fire hazard severity zone. As a result, the CFS Project could expose people or structures to a risk of loss, injury, or death involving wildland fires. However, the CFS Project EIR concluded that this impact would be reduced to less than significant with the implementation of the following mitigation measures: *HAZ-4(a): Final Fuel Management Plan* and *Mitigation Measure HAZ 4(b): Emergency Access*.
- The CFS Project EIR identified a potentially significant impact associated with repowering or decommissioning due to the improper disposal of hazardous waste, including used PV solar modules. However, this impact would be reduced to less than significant with the implementation of the following mitigation measures: *HAZ-5: Disposal of PV Modules and Support Structures*.
- The CFS Project EIR did not identify any significant impacts related to development on an active cattle ranch, which could expose workers and nearby sensitive receptors to diseases transmitted from the cattle grazing operations, including anthrax, coccidiosis, and/or anaplasmosis. Impacts related to the creation of a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions (i.e. transmission of animal borne diseases) would be less than significant.

IMPACTS OF THE PROPOSED MODIFICATION

The Proposed Modification is located entirely within the existing 2,120-acre SDA, which was proposed to be improved with utility-scale solar infrastructure as part of the CFS Project. As a result, the CFS Project EIR evaluated the potential hazards and hazardous materials related impacts associated with the construction of infrastructure within the area of the Proposed Modification. As described below, the Proposed Modification would not result in any additional environmental effects or increase the severity of a previously identified impact beyond those identified in the CFS Project EIR.

a, b) Less than Significant Impact with Mitigation: Consistent with the analysis contained in the CFS Project EIR, the Proposed Modification would entail the use of hazardous materials during construction and operation. This could create a potential hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. As identified in the CFS Project EIR, the implementation of an operation and maintenance and a chemical handling and emergency response plan would ensure that potential operational effects would be less than significant. Moreover, these effects would be further reduced through the implementation of a hazardous materials management plan, as required by the County of Monterey. The Proposed Modification, consistent with the approved CFS Project, would be required comply with these requirements, which would ensure that impacts would be less than significant.

The Proposed Modification site is not served by any public utilities due to its remote location. As identified in the CFS Project EIR, there are several utility lines which traverse the site, including an underground gas line. Grading and excavation during construction of the Proposed Modification could inadvertently strike an unidentified or improperly identified underground utility, such as the PG&E gas line, resulting in potential hazards to construction workers or other members of the public through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. As such, construction activities could result in potentially significant impacts related to underground utilities. Mitigation Measure *HAZ-3 Location Underground Utilities* would reduce this impact to a less-than significant-level.

c) No Impact: The Proposed Modification is not located within the vicinity of any schools.

d) No Impact: The Proposed Modification is not located on or near a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Sec. 65962.5.

e) No Impact: The Proposed Modification is not located within two (2) miles of a municipal or private airport. Therefore, no impacts would result due to airport related safety hazards.

f) No Impact: The Proposed Modification is in a remote location and would not interfere with any established evacuation route.

g) Less than Significant Impact with Mitigation: The CFS Project EIR identified that construction related activities, specifically welding, could increase risk of fire due to the ability of wind to carry sparks and start a fire. However, the CFS Project EIR identified that compliance with OSHA standards, specifically, standards 1910 and 1926 for construction activities related to welding, cutting, and brazing would ensure that impacts would be minimized. In addition to existing County and OSHA requirements, the CFS Project EIR also identified that vegetation management and other fire suppression measures proposed as part of the CFS Project would ensure impacts would be limited. While the Proposed Modification is not anticipated to require the same degree of construction related activities as the CFS Project, the Proposed Modification could potentially increase fire related hazards during construction due to operation of construction-related equipment in a high fire hazard severity zone. The extent of impacts would, however, be less than those identified in the CFS Project EIR due to the limited duration of construction and the limited scope of construction-related activities. Nevertheless, the implementation of existing mitigation measures contained

in the CFS Project EIR would ensure impacts would be less than significant. More specifically, the implementation of Mitigation Measures *HAZ-4(a): Final Fuel Management Plan* and *HAZ 4(b): Emergency Access*, as well as adherence with applicable regulatory requirements, would ensure that impacts would be less than significant. For more information, please also refer to the discussion of potential Wildfire hazards below.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any previously identified significant impacts. The Proposed Modification would implement the following mitigation measures, consistent with the CFS Project EIR, to ensure that potential impacts would be less than significant: *HAZ-3 Location Underground Utilities*, *HAZ-4(a): Final Fuel Management Plan*, *HAZ 4(b): Emergency Access*, and *HAZ-5 Disposal of Modules and Support Structures*. The implementation of existing mitigation measures would ensure that potential impacts associated with the Proposed Modification would be consistent with the findings of the CFS Project EIR.

J. Hydrology and Water Quality

EXISTING SETTING

The CFS Project EIR includes a detailed description of the existing environmental setting for hydrology and water quality.⁹ As identified in Section 4.9, Hydrology and Water Quality, of the CFS Project Draft EIT, the analysis contained in the CFS Project EIR is based in part on a Preliminary Drainage Analysis prepared by RBF Consulting, Inc. (August 2013). The Preliminary Drainage Analysis covered the entirety of the CFS Project site, including the area of the Proposed Modification. The drainage analysis included a preliminary evaluation of potential hydrology and water quality effects associated with the construction and operation of utility scale infrastructure on the CFS Project site and identified general recommendations to lessen the extent of potential effects based on the results of preliminary hydrologic modeling. While the Preliminary Drainage Analysis did not specifically contemplate the Proposed Modification, the overall conclusions and findings are nevertheless relevant and applicable to the Proposed Modification. Moreover, as identified below, the Proposed Modification would comply with existing mitigation measures identified in the CFS Project EIR, as well as other applicable Monterey County requirements. As a result, the Proposed Modification would not result in any additional environmental effects or an increase in severity of a previously identified significant impact beyond the levels identified in the CFS Project EIR. The following is a brief description of the existing environmental setting based on the information contained in the Preliminary Drainage Analysis prepared by RBF Consulting, Inc.

As discussed in the CFS Project EIR, the CFS Project site is sloped with an elevation between 1,100 feet at the southern end and 1,700 feet. The site is characterized as consisting of relatively flat land that was historically used for ranching purposes and is located within the Cholame Creek Watershed. The CFS Project site, which encompasses the Proposed Modification area is located on relatively flat (or gently sloping) land downstream from larger watersheds. The entire area consists of undeveloped rangeland. The area of the Proposed Modification is primarily covered with natural grasses. The Proposed Modification is not within a FEMA designated Special Flood Hazard Area.

The CFS Project EIR described the CFS Project site as consisting of three distinct naturally occurring drainage areas, referred to as Area 1, Area 2, and Area 3. A large watercourse referred to as Cottonwood Creek separates Areas 2 and 3. Other smaller watercourses with varying tributary areas flow through Areas 1 and 3. The northern area (Area 1) lies directly downstream from a 17.8 square mile steeply sloping tributary area. Much of the tributary area drains directly across Area 1, while a portion bypasses it to the east and west. Area 1 does not drain to one point of concentration. Instead, there are many outflow points at the base of the hills that direct flows onto Area 1. Area 2 is between Area 1 and Area 3 on high ground between two watercourses and essentially has no tributary area. Area 3 is located to the south of Area 2, but the two areas are not hydrologically connected. A 1.5-square-mile steeply sloping area drains to Area 3. Most of the runoff across Area 3 is concentrated into one watercourse. The Proposed Modification is located in Area 1.

The CFS Project site is underlain by the Cholame Valley Groundwater Basin, which covers approximately 62 square miles.

⁹ Please refer to Section 4.9, Hydrology and Water Quality, for more information.

CHECKLIST

| | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|--|---|--------------------------------|--|--|-------------------------------------|
| Would the project: | | | | | |
| a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| i) result in substantial erosions or siltation on- or off-site; | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv) impede or redirect flood flows? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

The CFS Project EIR (see Final EIR, pgs. 4-122 through 4-127) includes an evaluation of potential environmental effects associated with the construction and operation of the CFS Project. Specifically, the CFS Project EIR identified that the CFS Project could: 1) potentially degrade water quality due to erosion and sedimentation due to ground disturbing activities (see Impact HYD-1, Draft EIR, pg. 4.9-15 through 4.9-16); 2) result in the accidental release of a hazardous material that could degrade water quality (see Impact HYD-2, Draft EIR, pg. 4.9-17 through 4.9-18); 3) alter the existing drainage pattern of the site that could result in increased runoff (see Impact HYD-4, Draft EIR, pg. 4.9-23 through 4.9-24); and, 4) result in the exposure of project-related improvements to potential flooding hazards (see HYD-5, Draft EIR, pg. 4.9-25 through 4.9-27). The CFS Project EIR also identified that the Project would not substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or lowering of the local groundwater table (see Impact HYD-3, Draft EIR, pg. 4.9-18 through 4.9-22). The following is a brief overview of the findings of the CFS Project EIR related to hydrology and water quality.

- The CFS Project EIR did not identify any significant impacts associated with the degradation of water quality due to erosion and sedimentation due to temporary ground-disturbing activities. Compliance with existing federal, state and local requirements would ensure that impacts remain less than significant.
- The CFS Project EIR identified a potentially significant impact due to the accidental release of hazardous materials during construction and operation that could degrade water quality. However, this impact would be reduced to less than significant with the implementation of the following mitigation measures: *HYD-2(a): Accidental Spill Control and Environmental Training* and *HYD-2(b): Maintain Vehicles and Equipment*.
- The CFS Project EIR did not identify any significant impacts due to the depletion of groundwater supplies or interference with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. In addition, the CFS Project EIR concluded that there were sufficient water supplies available from existing resources and no new or expanded entitlements would be needed. Therefore, impacts would be less than significant.
- The CFS Project EIR did not identify any significant impacts associated with the altering of the existing drainage pattern.
- The introduction of impervious surfaces associated with the CFS Project would increase runoff, potentially resulting in flooding or increased erosion downstream. The impacts associated with the alteration of drainage patterns and introduction of impervious surfaces would be less than significant.
- The CFS Project EIR did not identify any significant impacts associated with the project site's potential flooding hazards. The CFS Project EIR concluded that this would represent a less than significant impact.

IMPACTS OF THE PROPOSED MODIFICATION

As noted previously, the Proposed Modification is located within the existing 2,120-acre SDA, which the CFS Project EIR assumed would be developed with utility-scale infrastructure. As a result, the CFS Project EIR evaluated the potential impacts associated with the construction of infrastructure on the site of the Proposed Modification. As documented below, the Proposed Modification would not result in any additional or more severe environmental effects beyond those identified in the CFS Project EIR. Moreover, the Proposed Modification would comply with all existing mitigation measures identified in the CFS Project EIR thereby ensuring that impacts would be less than significant.

a) Less Than Significant Impact with Mitigation: The Proposed Modification, consistent with the findings of the CFS Project EIR, could potentially result in the accidental release of a hazardous material or materials during construction and/or operation. This could potentially degrade water quality within the Cholame Creek Watershed or the Cholame Valley Groundwater basin. As identified in the CFS Project EIR, potentially hazardous materials may include diesel fuel, gasoline, lubricant oils, hydraulic fluid, antifreeze, transmission fluid, lubricant grease, cement slurry, and other fluids required for the operation of construction vehicles and equipment. Motorized equipment used during construction or operation could also leak hazardous materials such as motor oil, transmission fluid, or antifreeze due to inadequate or improper maintenance, unnoticed or unrepaired damage, improper refueling, or operator error.

The Proposed Modification could adversely affect water quality due to the improper handling and use of hazardous materials, and operation of construction and maintenance equipment. Compliance with existing regulatory requirements, including Department of Toxic Substance Control ("DTSC") regulations related to the generation, treatment, disposal, and transportation of hazardous materials, NPDES construction-phase requirements, as well as other local regulatory requirements would minimize the extent of potential impacts. The implementation of mitigation identified in the CFS Project EIR would ensure that potential impacts would be less than significant. These measures include *HYD-2(a) Accidental Spill Control and*

Environmental Training and HYD-2(b) Maintain Vehicles and Equipment. Moreover, the Proposed Modification would also be required to comply with the NPDES program for stormwater discharges associated with construction activities, including through the preparation of a SWPPP and implementation of associated BMPs, as well as implement an erosion control plan consistent with the County of Monterey standards.

b) No Impact: The Proposed Modification would not deplete groundwater supplies, nor would the Proposed Modification substantially interfere with groundwater recharge such that the modifications may impede sustainable groundwater management of the underlying basin. As a result, there would be no impact.

c) Less than Significant Impact: Implementation of the Proposed Modification would not substantially alter the existing drainage pattern in a manner that would: 1) result in substantial erosion or siltation on- or off-site; 2) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; or 3) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The Proposed Modification would result in the introduction of new structures and related improvements, which could result in additional erosion through the introduction of impervious surfaces - these changes would not substantially increase the amount of erosion or surface runoff in a manner which would result in flooding on- or off-site. Moreover, the Proposed Modification would not increase the amount of impervious surfaces beyond the levels evaluated in the CFS Project EIR. In fact, the Proposed Modification, when considered with the constructed CFS Project, would result in less impervious surfaces than evaluated in the CFS Project EIR. While the CFS Project EIR anticipated 11 acres of impervious surfaces, the actual extent of impervious surfaces, based on final project design, was considerably less – only 0.006 acres of impervious surfaces were constructed. The Proposed Modification would result in an additional 0.125 acres of impervious surfaces. As a result, total impervious surface coverage would be substantially less than the amount analyzed in the CFS Project EIR. Therefore, the Proposed Modification is not anticipated to substantially increase impervious surfaces and related effects beyond those considered in the CFS Project EIR. Moreover, the final design of the Proposed Modification would be developed in accordance with a final, design-level, drainage analysis consistent with the findings of the CFS Project EIR. Compliance with the recommendations of a design-level drainage analysis and existing regulatory requirements would ensure that impacts would be less than significant. This represents a less than significant impact.

d, e) No Impact: The Proposed Modification is not located within a flood hazard zone, near a dam or levee structure, or located in an area subject to significant seiche, tsunami, or mudflow risk (Monterey County, 2010b and 2010c). As a result, the Proposed Modification would not risk the release of pollutants due to project inundation. In addition, the Proposed Modification would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR. The Proposed Modification would implement the following mitigation measures, consistent with the CFS Project EIR, to ensure that potential impacts would be less than significant: *HYD-2(a) Accidental Spill Control and Environmental Training and HYD-2(b) Maintain Vehicles and Equipment.* The implementation of existing mitigation measures would ensure that potential impacts associated with the Proposed Modification would be consistent with the findings of the CFS Project EIR. In addition, the Proposed Modification would also comply with the recommendations of a design-level drainage analysis, as well as NPDES requirements, including the preparation of SWPPP and implementation of associated BMPs. Compliance with these requirements, as well as the mitigation measures identified above, would ensure that the Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR.

K. Land Use and Planning

EXISTING SETTING

The CFS Project EIR includes a detailed description of the existing environmental setting for land use and planning.¹⁰ As discussed in the CFS Project EIR, the CFS Project is in south Monterey County on a portion of an existing 72,000-acre cattle ranch, known as “Jack Ranch,” which is itself part of the larger, 152,000-acre Hearst Ranch. The Monterey County General Plan land use designation for the site is Agricultural. As indicated in the South County Area Plan, the site is currently zoned Farmlands (160-acre minimum parcel size) and Permanent Grazing (160-acre minimum parcel size).

CHECKLIST

| Would the project: | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|--|---|--------------------------------|--|--|-------------------------------------|
| a) Physically divide an established community? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

The CFS Project EIR identified that the CFS Project would potentially be inconsistent with certain policies contained in the County’s Open Space and Conservation Element that were adopted for the purposes of avoiding or mitigating an environmental effect. The CFS Project EIR concluded that these effects would be less than significant with the implementation of mitigation measures identified in the CFS Project EIR (see Impact LU-1; Draft EIR, pg. 4.10-7 through 4.10-30; see also Final EIR, pg. 4-128). The CFS Project EIR also identified that the CFS Project would be consistent with the policies of the South County Area Plan and no mitigation measures would be necessary to lessen the extent of project-related effects to a less than significant level (see Impact LU-2; Draft EIR, pg. 4.10-31 through 4.10-32). The following is a brief overview of the findings of the CFS Project EIR related to land use and planning.

- The CFS Project EIR did not identify any impacts associated with the physical division of an established community.
- The CFS Project EIR did not identify any significant impacts associated with land use compatibility for Monterey County’s 2010 General Plan or the South County Area Plan. There are certain policies included in the General Plan’s Open Space and Conservation Element adopted for the purpose of avoiding or mitigating any environmental effect with which the project could be considered potentially inconsistent. However, policy consistency issues would be addressed through implementation of feasible mitigation measures identified through the CFS Project EIR and no additional significant impacts would result.

¹⁰ Please refer to Section 4.10, Land Use and Planning, of the CFS Project Draft EIR for more information.

IMPACTS OF THE PROPOSED MODIFICATION

The Proposed Modification is located entirely within the existing 2,120-acre SDA, which was proposed to be improved with utility-scale solar infrastructure as part of the CFS Project. As a result, the CFS Project EIR evaluated the potential land use and planning related impacts associated with the construction of infrastructure within the area of the Proposed Modification. As described below, the Proposed Modification would not result in any additional environmental effects or increase the severity of a previously identified impact beyond those identified in the CFS Project EIR.

a) No Impact: Implementation of the Proposed Modification would not physically divide an established community. The CFS Project is a renewable energy project located in a remote area of Monterey County.

b) Less than Significant Impact: The location of the Proposed Modification is designated by the County of Monterey as Farmlands and Permanent Grazing. Consistent with the findings of the CFS Project EIR, the Proposed Modification would be a compatible land use since it would modify an existing renewable energy facility that the County of Monterey previously determined was a compatible use. Moreover, the proposed infrastructure improvements are consistent with existing on-site facilities. As a result, the Proposed Modification would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Proposed Modification. Moreover, the implementation of mitigation measures identified in the CFS Project EIR would ensure that any potential land use conflicts would be minimized to a less than significant level. Construction activities would be temporary in nature and would not result in any additional impacts beyond those previously identified in connection with the CFS Project.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR related to land use and planning.

L. Mineral Resources

EXISTING SETTING

The CFS Project site is not located in an area containing mineral resources; therefore, a discussion of the existing setting is not included.

CHECKLIST

| | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|---|---|--------------------------------|--|--|-------------------------------------|
| Would the project: | | | | | |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

- Based on the CFS Project EIR, the project would not result in the loss of availability of known mineral resources or the availability of a locally important mineral resource recovery site delineated in the 2010 Monterey County General Plan. The CFS Project is not located in a mineral resource zone (“MRZ”) as defined by the California Department of Conservation California Geological Survey. There is no land designated for mineral resources in the South County Area Plan. The CFS Project is not located on, adjacent to, or near mineral resources or recovery sites. There are no known mineral resources known to exist on or in the vicinity of the CFS Project, hence there would be no impact to mineral resources.

IMPACTS OF THE PROPOSED MODIFICATION

a, b) No Impact: The Proposed Modification site is not located in an area of potential mineral resources; the BESS and related improvements would not impact mineral resources.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR related to mineral resources.

M. Noise

EXISTING SETTING

The CFS Project EIR includes a detailed description of the existing environmental setting for noise.¹¹ As discussed in the CFS Project EIR, the general noise environment in the area is characterized by open space, rural residential, or agricultural use with low ambient noise levels during the evening and nighttime hours. The primary ambient sources of noise on the CFS Project site and in the surrounding area include wind, cattle, other fauna (birds, small mammals, etc.), and buzzing from the existing transmission line that transects the site, as well as noise from existing facilities associated with the CFS Project. Sensitive receptors near the project site include rural residences located north of the northwestern corner of the CFS Project site boundary. These residences are located approximately two (2) miles from the Proposed Modification boundary, near the eastern public road terminus of Turkey Flat Road.

CHECKLIST

| Would the project result in: | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|---|---|--------------------------------|--|--|-------------------------------------|
| a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Generation of excessive groundborne vibration or groundborne noise levels? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) For a project located within the vicinity of a private airport an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

The CFS Project EIR identified that the CFS Project would result in less than significant noise-related effects associated with construction. Specifically, the CFS Project EIR identified that the CFS Project would result in temporary construction-related effects associated with the operation of heavy equipment (see Impact N-1, Draft EIR, pg. 4.11-11 through 4.11-14; see also Final EIR, pg. 4-128 through 4-129) and temporary construction-related noise due to vehicular traffic (see Impact N-2, Draft EIR, pg. 4.11-14 through 4.11-15). The CFS Project EIR identified that noise sensitive receptors are located north of the CFS Project site; however, these receptors are located approximately two (2) miles from the Proposed Modification. As described in the CFS Project EIR (see Impact N-1, Draft EIR, pg. 4.11-11 through 4.11-14), the extent and duration of construction activities within proximity of this receptor would be limited and no construction activities associated with the Proposed Modification are anticipated to occur in proximity to this receptor. The following is a brief overview of the findings of the CFS Project EIR related to noise.

¹¹ Please refer to the CFS Project Draft EIR, Section 4.11, Noise, for more information.

- The CFS Project EIR did not identify any significant impacts associated with the operation of heavy equipment due to temporary noise level increase. Impacts associated with temporary noise levels would be less than significant.
- The CFS Project EIR did not identify any significant impacts associated with the short-term traffic-related noise on area highways. Traffic-related noise is not expected to result in a substantial increase in ambient noise levels on the site or on affected off-site roadways that would impact nearby sensitive noise receptors. Therefore, the CFS Project EIR concluded that impacts would be less than significant.
- The CFS Project EIR did not identify any significant impacts associated with long-term operational noise. The CFS Project would not result in a substantial increase in ambient noise levels that would impact nearby sensitive noise receptors. Therefore, the CFS Project EIR concluded that impacts would be less than significant.
- The CFS Project EIR did not identify any significant operational noise due to operational traffic. Operational traffic would be minimal and would not substantially increase ambient noise levels. Therefore, the CFS Project EIR concluded that impacts would be less than significant.
- The CFS Project EIR also concluded that the CFS Project would not result in the generation of excessive groundborne vibration or groundborne noise levels, nor would the CFS Project expose people residing or working in the area to excessive noise levels.

IMPACTS OF THE PROPOSED MODIFICATION

The Proposed Modification is located entirely within the existing 2,120-acre SDA, which was proposed to be improved with utility-scale solar infrastructure as part of the CFS Project. As a result, the CFS Project EIR evaluated the potential noise related impacts associated with the construction of infrastructure within the area of the Proposed Modification. As described below, the Proposed Modification would not result in any additional environmental effects or increase the severity of a previously identified impact beyond those identified in the CFS Project EIR.

a, b) Less Than Significant Impact: Construction of the Proposed Modification would generate temporary increases in noise associated with the use of construction equipment. In addition, construction could also result in temporary increases in groundborne vibration or groundborne noise levels in connection with construction-related activities. However, the nearest sensitive receptors to the site are located approximately two (2) miles. In addition, noise generated by construction would be temporary in nature and would be minimized through the adherence to standard construction noise reduction measures to minimize potential impacts to adjacent noise sensitive uses. The implementation of standard construction best management practices, as well as the proximity of noise sensitive receptors to the proposed construction area, would ensure that the Proposed Modification would not result in any additional environmental effects or increase the severity of a previously identified significant impact beyond those previously identified as part of the CFS Project.

c) No Impact: The Proposed Modification is not located within two miles of a municipal airport or private airstrip and would not add new sensitive receptors to the site that would be exposed to existing or future nearby noise sources.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR related to noise.

N. Population and Housing

EXISTING SETTING

The CFS Project consists of a renewable energy facility that would not induce substantial unplanned growth or displace a substantial number of existing people or housing. Similarly, the Proposed Modification would not induce unplanned growth or displace a substantial number of existing people or housing. As a result, a detailed description of population and housing is not included as part of this analysis.¹²

CHECKLIST

| | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|---|---|--------------------------------|--|--|-------------------------------------|
| Would the project: | | | | | |
| a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

- The CFS Project EIR did not include a section specific to population and housing, but it did discuss the impact of temporary workforce housing in Section 6.0 Long-Term Impacts. The CFS Project EIR identified a significant impact associated with the temporary direct and indirect population growth impacts resulting from worker relocation. However, this impact would be reduced to less than significant with the implementation of *Mitigation Measure LT-1: Worker Housing Program*.
- Based on the CFS Project EIR, the project would not displace any houses or people or require the construction of replacement housing elsewhere. There would be no impact.

IMPACTS OF THE PROPOSED MODIFICATION

a, b) No Impact. The Proposed Modification would not induce substantial unplanned population growth or displace existing housing or people.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR related to population and housing.

¹² For more information, please refer to Chapter 6.0, Long-term Impacts, of the CFS Project EIR for more information about growth-inducing effects of the CFS Project.

O. Public Services

EXISTING SETTING

The CFS Project EIR includes a detailed description of the existing environmental setting for public services.¹³ As discussed in the CFS Project EIR, the CFS Project site is accessible by an existing 5.6-mile private access road from State Route (“SR”) 41. Emergency access would be available from Turkey Flat Road, which is a two-lane east-west rural road that extends for approximately four miles between Cholame Valley Road and a gated entry at the western border of the CFS Project site. The CFS Project is provided fire protection services by the California Department of Forestry and Fire Prevention (“CAL FIRE”), which has a substation in Parkfield. The County of Monterey, Office of the Sheriff is responsible for providing police protection services and the nearest Sheriff’s office is located in King City, approximately 50 miles northwest of the CFS Project.

CHECKLIST

| | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|---|---|--------------------------------|--|--|-------------------------------------|
| a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fire protection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Police protection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Schools? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Parks? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Other public facilities? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

The CFS Project EIR identified that construction of the CFS Project would temporarily increase the demand for fire protection and emergency response services and response times would exceed acceptable limits in the County’s General Plan (see Impact PS-1, Draft EIR, pg. 4.12-10; see also Final EIR, pg. 4-129 through 4-134). The extent of potential effects would be reduced through the implementation of mitigation identified in the CFS Project EIR. The CFS Project EIR also identified that there would be an incremental increased demand for police protection services (see Impact PS-2, Draft EIR, pg. 4.12-11 through 4.12-12) and increase demand for solid waste disposal (see Impact PS-3, Draft EIR, 4.12-12 through 4.12-14). These impacts were identified as less than significant, and no mitigation was identified as necessary. The following is a brief overview of the findings of the CFS Project EIR related to public services.

¹³ Please refer to Section 4.12, Public Services, of the CFS Project Draft EIR for more information.

- The CFS Project EIR identified the CFS Project would result in an increase demand for public services during construction and operation of the CFS Project. The CFS Project EIR identified that this represented a potentially significant impact that could be reduced to a less than significant level through the implementation of the following mitigation measures; *PS-1(a): Construction Management Plan*, *PS-1(b): Emergency Response Training*, and *PS-1(c): Fire Protection during Construction*. Therefore, the CFS Project EIR concluded that this represented a less than significant impact.
- The CFS Project EIR did not identify any significant impacts due to the incremental increased demand for police protection services during construction and operation of the CFS Project. Therefore, the CFS Project EIR concluded that impacts would be less than significant.

IMPACTS OF THE PROPOSED MODIFICATION

a) Less than Significant Impact with Mitigation: Consistent with the findings of the CFS Project EIR, the Proposed Modification is not anticipated to substantially increase the demand for police protection services, schools, or parks due to nature of the Proposed Modification. The Proposed Modification would, however, result in increased activity during construction that could increase the demand for fire services. The influx of up to 70 construction workers could result in new demands for fire protection services, including emergency medical services, for the duration of construction activities. This could potentially affect service ratios, response times, and other performance objectives related to fire protection services. As identified in the CFS Project EIR, during the peak fire season (May to October), when the Cal Fire Parkfield station is operational, there would be adequate fire protection services and no new facilities would be required to maintain acceptable service ratios, response times or other performance related objectives. In the off-peak season, the increased demand for fire protection services during construction could affect service ratios, response times, and other performance objectives related to fire protection services. Therefore, mitigation is required to ensure adequate service would be maintained without the need to construct new facilities or modify/alter existing fire protection facilities. The implementation of Mitigation Measures HAZ-4(a) and HAZ-4(b), previously identified in **Section I, Hazards and Hazardous Materials**, would reduce this impact to less than significant levels. In addition, the implementation of the following mitigation measures would further ensure impacts would be less than significant: *PS-1(a) Construction Management Plan*, *PS-1(b) Emergency Response Training*, and *PS-1(c) Fire Protection during Construction*.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR. The Proposed Modification would implement the following mitigation measures, consistent with the CFS Project EIR, to ensure that potential impacts would be less than significant: *HAZ-4(a): Final Fuel Management Plan*, *HAZ 4(b): Emergency Access*, *PS-1(a) Construction Management Plan*, *PS-1(b) Emergency Response Training*, and *PS-1(c) Fire Protection during Construction*. The implementation of existing mitigation measures would ensure that potential impacts associated with the Proposed Modification would be consistent with the findings of the CFS Project EIR.

P. Recreation

EXISTING SETTING

The CFS Project would not impact recreational resources; therefore, a discussion of the existing setting is not included.

CHECKLIST

| | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|--|---|--------------------------------|--|--|-------------------------------------|
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

The CFS Project EIR did not identify any impacts related to recreational resources. Furthermore, there are no parks or recreational facilities located in the vicinity of the CFS Project site. The CFS Project would not create an increase in population or promote activities that would increase the use of existing parks and recreational facilities. Additionally, no recreational facilities or any activities that would require the construction or expansion of recreational facilities were proposed as part of the CFS Project.

IMPACTS OF THE PROPOSED MODIFICATION

a, b) No Impact: The Proposed Modification would not result in new significant impacts because there would be no direct or indirect increased use of parks or recreational facilities as part of the Proposed Modification. No additional recreational facilities are included in the BESS and associated improvements.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR related to recreation resources.

Q. Transportation

EXISTING SETTING

The CFS Project EIR includes a detailed description of the existing environmental setting for transportation.¹⁴ As discussed in the CFS Project EIR, the CFS Project site is located near the junction of State Route (“SR”) 41, SR 46, and Cholame Valley Road. The CFS Project is approximately seven miles southeast of the community of Parkfield and 25 miles northeast of the City of Pas+o Robles, near the borders of Monterey, San Luis Obispo, Kings and Fresno counties. SR 41 and SR 46 are east-west state highways that connect U.S. Highway 101 (US 101) and Interstate 5 (I-5). These routes are used by commuters will be used for material transportation as part of the CFS Project.

CHECKLIST

| Would the project: | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|--|---|--------------------------------|--|--|-------------------------------------|
| a) Conflict with a plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Would the project conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Result in inadequate emergency access? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

The CFS Project EIR analyzed potential traffic related effects associated with the construction of the CFS Project over a 12-month period (see Draft EIR, Section 4.13, Transportation; see also Final EIR, pg. 4-134 through 4-137). This represented a conservative approach to estimate potential construction-related effects, and the CFS Project EIR determined that if construction lasted longer than 12-months then the number of peak hour trips would be less (see Draft EIR, pg. 4.13-11). The CFS Project EIR identified that construction would generate a significant and unavoidable impact along a segment of SR 41 and SR 46 that currently operates at an unacceptable Level of Service (“LOS”) (see Impact T-1, Draft EIR, pg. 4.13-15 through 4.13-17). The CFS Project EIR also identified potentially significant, but mitigable, impacts related to traffic generated during the construction phase that would add trips to the intersection of SR 41/SR46, which currently operates at an unacceptable LOS F during the Friday PM peak hour (see Impact T-2, Draft EIR, pg. 4.13-17 through 4.13-19). The implementation of Friday peak hour traffic control measures (see Mitigation Measure T-2) would ensure that potential Friday PM peak hour traffic impacts would be lessened to a less than significant level. The CFS Project EIR also identified significant and unavoidable impacts associated with the addition of traffic to the SR 41/SR 46 intersection during construction (see Impact T-5, Draft EIR, pg. 4.13-21 through 4.13-23). This impact would remain significant until such time that Caltrans

¹⁴ Please refer to the CFS Project Draft EIR, Section 4.13, Transportation.

constructs planned SR 46 improvements at this intersection, which is not expected until after the CFS Project construction is complete. The CFS Project EIR also identified potential traffic related effects associated with the use of park and ride facilities during construction and identified mitigation to lessen the extent of traffic-related effects (see Impact T-7, Draft EIR, pg. 4.13-25). The following is a brief overview of the findings of the CFS Project EIR related to transportation/traffic.

- The CFS Project EIR identified a potentially significant impact associated with project-generated traffic during the construction phase due to the incremental increase of construction-generated traffic on a segment of SR 46 between SR 41 and Branch Road that operates at an unacceptable Level of Service (“LOS”) E. The mitigation measures would not be able to fully address the impacts; therefore, the impact would be significant and unavoidable.¹⁵
- The CFS Project EIR identified a potentially significant impact associated with project generated traffic during the construction phase by adding trips to the intersection of SR 41/SR 46, which currently operates at an unacceptable LOS F during the Friday PM peak hour. However, the impact would be reduced to less than significant with the implementation of the following mitigation measure: *T-2: Friday Peak Hour Control Measures – Construction Phase*.
- The CFS Project EIR identified a potentially significant operational traffic impact on SR 46 between SR 41 and Branch Road, which currently operates at an unacceptable LOS E. CFS Project generated traffic during the operational phase would add an additional 20 trips per day to this roadway segment. The CFS Project EIR determined that this would represent a significant impact to roadway operations based on Caltrans significance thresholds. The CFS Project EIR, however, identified that planned future improvements would eliminate this impact, but the impact would remain significant until such time that the improvements were constructed.
- The CFS Project EIR identified a potentially significant operational traffic impact due to the addition of traffic trips to the intersection of SR 41 / SR 46, which operates at an unacceptable LOS F during the Friday PM peak hour. However, the impact would be reduced to less than significant with the implementation of the following mitigation measure: *T-4: Friday Peak Hour Control Measures – Operation Phase*.
- The CFS Project EIR did not contain an analysis of CEQA Guidelines Sec. 15064.3, subdivision (b), because at the time the CFS Project EIR was prepared, the CEQA Guidelines had not been updated to require an evaluation of vehicle miles traveled (“VMT”).
- The CFS Project EIR identified a potentially significant impact due to existing traffic related hazards. Specifically, the CFS Project EIR identified that the addition of traffic to the SR 41/SR 46 intersection would increase hazards at an intersection where accident rates are more than two times the statewide average. The flagman, as required by *Mitigation Measures T-2: Friday Peak Hour Control Measures – Construction Phase* and *T-4: Friday Peak Hour Control Measures – Operation Phase*, would partially reduce hazard related impacts at the SR 41/SR 46 intersection during the Friday PM peak hour. However, no mitigation measures are available to fully reduce hazard-related impacts at the SR 41/SR 46 intersection to a less than significant level; therefore, impacts are significant and unavoidable.
- The CFS Project EIR did not identify any significant impacts associated with emergency vehicle accessibility.
- The CFS Project EIR identified a potentially significant impact associated with an employee shuttle service that would provide transportation to and from the site during the construction phase. The exact location, size, and design of the proposed park and ride facilities were not known at the time the County of Monterey prepared the CFS Project EIR; therefore, the CFS Project EIR concluded

¹⁵ The CFS Project EIR determined the significance of potential transportation-related effects based on adopted level of service (“LOS”) thresholds of significance. The CEQA Guidelines have since been amended to require an analysis of potential transportation effects using a threshold based on VMT. As a result, LOS thresholds are no longer considered determinative for evaluating the significance of traffic-related impact under CEQA.

that there was the potential for secondary impacts to the environment to occur. However, the impact would be reduced to a less than significant level with the implementation of the following mitigation measure: *T-7: Park and Ride Facility Siting*.

IMPACTS OF THE PROPOSED MODIFICATION

Kimley Horn & Associates (“KHA”) prepared a detailed technical memorandum evaluating the potential environmental effects associated with the Proposed Modification. More specifically, KHA evaluated the potential traffic-related effects associated with the Proposed Modification in comparison to the analysis contained in the CFS Project EIR using substantially the same methodology and approach for comparative purposes. The following represents the results of the technical analysis prepared by KHA which conclusively demonstrates that the Proposed Modification would not result in any additional environmental effects or an increase in the severity of a previously identified significant impact beyond the levels identified in the CFS Project EIR.

a) No Impact: The Proposed Modification would not conflict with a plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. The Proposed Modification would result in temporary construction-related traffic that would access the existing CFS Project site via the existing private driveway. The Proposed Modification would not affect existing site access or otherwise conflict with a plan, ordinance or policy related to existing circulation. Moreover, construction-related effects would be temporary in nature. Finally, the Proposed Modification would not result in any additional operational traffic beyond the levels previously identified in the CFS Project EIR. Therefore, there would be no impact regarding this criterion.

b) Less than Significant Impact: CEQA Guidelines Sec. 15064.3(b) provides criteria for analyzing transportation impacts. More specifically, CEQA Guidelines Sec. 15064.3(b)(1) identifies that VMT exceeding an applicable threshold of significance may indicate that a project may have a significant transportation related effect. In the absence of an adopted threshold of significance, CEQA Guidelines Sec. 15064.3(b)(3) identifies that a lead agency may qualitatively evaluate potential traffic-related effects by considering such factors as availability of transit, proximity to other destinations, etc. Currently, the County of Monterey does not have an adopted threshold of significance for VMT. However, according to technical guidance prepared by the Office of Planning and Research (“OPR”), projects that generate or attract fewer than 110 trips per day generally may be presumed to have a less than significant transportation impact (OPR 2018). While CEQA Guidelines Sec. 15064.3(b) requires an evaluation of a project’s traffic-related effects based on VMT, the requirements of CEQA Guidelines Sec. 15064.1(b) do not take effect until July 1, 2020.

While the updated CEQA Guidelines require an evaluation of VMT, the CFS Project EIR was certified prior to the adoption of the most recent CEQA Guidelines. As a result, the CFS Project EIR determined the significance of potential transportation-related effects based on adopted level of service (“LOS”) thresholds of significance, which as noted previously are no longer considered determinative for evaluating the significance of traffic-related impact under CEQA. Nevertheless, KHA evaluated the potential temporary traffic related effects associated with the construction of the Proposed Modification using substantially the same approach and methodology outlined in CFS Project EIR to determine whether the Proposed Modification would result in any additional transportation-related effects beyond those identified in the CFS Project EIR. **Table 3** depicts anticipated daily trips associated with the Proposed Modification.

Table 3
Trip Generation Rates – 8 Month Peak Construction Duration

| Project Trip Type | Daily Trips | AM Peak | | | PM Peak | | |
|--|-------------|-----------|-----------|----------|-----------|----------|-----------|
| | | Total | IN | OUT | Total | IN | OUT |
| Battery Storage Project Construction Phase | | | | | | | |
| Personal Vehicle Trips | | | | | | | |
| Construction Workforce: Personal Vehicles | 88 | 39 | 39 | 0 | 39 | 0 | 39 |
| <i>Total Passenger Vehicle Trips</i> | 88 | 39 | 39 | 0 | 39 | 0 | 39 |
| Heavy Vehicle Trips | | | | | | | |
| Equipment Deliveries (EPC Battery Facility) | 4 | 4 | 2 | 2 | 4 | 2 | 2 |
| Concrete Deliveries (EPC Battery Facility) | 8 | 2 | 1 | 1 | 2 | 1 | 1 |
| Equipment Deliveries (Substation Expansion) | 6 | 3 | 3 | 0 | 3 | 0 | 3 |
| <i>Total Heavy Vehicle Trips</i> | 18 | 9 | 6 | 3 | 9 | 3 | 6 |
| Proposed Battery Storage – Total Construction Trips | 106 | 48 | 45 | 3 | 48 | 3 | 45 |
| EIR – Total Construction Trips | 263 | 88 | 88 | 0 | 88 | 0 | 88 |

Notes:

1. Personal Vehicles are FHWA Class 1- 3 vehicles. Heavy vehicles are FHWA Class 4 and above vehicles.
2. Estimated number of personal vehicle trips assumes 75% of employees traveling by carpool to and from the site with assumed carpool occupancy of 2.5 employees per carpool vehicle. The remaining 25% of employees are assumed to travel to and from the site in single-occupancy vehicles.

As indicated in **Table 3**, the Proposed Modification would result in substantially less construction-related traffic than identified in the CFS Project EIR. The Proposed Modification would result in an estimated 88 daily workforce related construction trips, including 39 AM peak and 39 PM peak trips, and an additional 18 heavy vehicles trips. The Proposed Modification is anticipated to result in approximately 106 daily construction trips. It is important to note, however, that KHA conservatively estimated construction traffic based on a maximum workforce of 70 workers. The typical workforce is anticipated to be approximately 30 workers, which would generate substantially less construction traffic. Under this scenario, the Proposed Modification is estimated to generate 26 daily trips. Similarly, it is also worth noting that the AM and PM peak hour trips identified in **Table 3** do not take into consideration that the majority of construction personnel would typically arrive onsite prior to the peak AM period and would also typically depart outside of the PM peak. Nevertheless, even under the conservative approach utilized by KHA, the Proposed Modification would result in substantially less traffic related effects than those identified in the CFS Project EIR. As a result, the Proposed Modification would not result in any additional environmental effects beyond those previously identified in the CFS Project EIR. Additionally, the Proposed Modification would also implement all existing mitigation measures identified in the CFS Project EIR to minimize construction-related effects.

KHA prepared a detailed technical memorandum evaluating the Proposed Modification's potential transportation related effects based on substantially the same methodology used in the CFS Project EIR, which evaluated potential traffic-related effects based on established LOS thresholds of significance. As outlined above, LOS is no longer considered determinative of whether a project would have a significant effect for the purposes of CEQA. While the County of Monterey does not have an adopted VMT threshold, OPR has identified that a project with less than 110 daily trips can be presumed to have a less than significant transportation related effect. As noted above, the Proposed Modification would conservatively result in 106 daily trips; actual daily trips are anticipated to be substantially less. In addition, the Proposed Modification also includes measures to reduce VMT. More specifically, KHA assumed that construction personnel would carpool to and from the construction site in personal vehicles (KHA 2020) thereby reducing potential VMT during construction. Because the Proposed Modification would not exceed 110 daily construction trips and because the Proposed Modification includes traffic demand management measures (i.e., carpooling), the Proposed Modification would result in a less than significant transportation-related effect under CEQA Guidelines Sec. 15064.3(b)

Operation of the Proposed Modification would not generate any additional operational traffic beyond the levels identified in the CFS Project EIR. No additional operational traffic is anticipated with the Proposed Modification. It is anticipated that the Proposed Modification would be operated primarily remotely with support from existing on-site staff. As a result, the Proposed Modification is not anticipated to result in a significant increase in operational traffic. This is considered a less than significant impact.

c) Less than Significant Impact: The CFS Project EIR found that there would be a significant and unavoidable impact due to existing traffic hazards associated with the SR 41/SR 46 intersection. The Proposed Modification would result in temporary construction-related traffic, which would contribute traffic to the SR 41/46 intersection. The Proposed Modification would, however, contribute substantially less construction traffic than evaluated in the CFS Project EIR. In addition, as identified above, KHA's analysis conservatively estimated anticipated construction traffic assuming the maximum workforce would be present onsite for the duration of construction. Actual construction traffic is anticipated to be less. Because the Proposed Modification would generate less construction traffic than evaluated in the CFS Project EIR the Proposed Modification would not result in any additional environmental effects or substantially increase a previously identified significant impact beyond the levels identified in the CFS Project EIR.

d) No Impact: The Proposed Modification would not result in inadequate emergency access. The Proposed Modification consists of the construction of a BESS and related infrastructure improvements to modify the existing CFS Project to allow onsite energy storage. Emergency access would continue to be available primarily from the existing private driveway and secondary access would be available via Turkey Flat Road. The Proposed Modification is located entirely within the existing SDA in an area that was previously planned to be developed with utility-scale solar infrastructure. The Proposed Modification would not affect existing access to the CFS Project site or affect the existing internal access.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR related to transportation and traffic. The Proposed Modification would implement the following mitigation measures, consistent with the CFS Project EIR, to ensure that potential impacts would be less than significant: *T-2: Friday Peak Hour Control Measures – Construction Phase*, and *T-4: Friday Peak Hour Control Measures – Operation Phase*. The implementation of existing mitigation measures would ensure that potential impacts associated with the Proposed Modification would be consistent with the findings of the CFS Project EIR.

R. Tribal Cultural Resources

EXISTING SETTING

At the time the CFS Project EIR was prepared, Tribal Cultural Resources was not part of the CEQA Guidelines. However, Section 4.5, Cultural and Paleontological Resources, of the CFS Project EIR evaluated the potential impacts to cultural and paleontological resources associated with the CFS Project, including potential impacts to tribal resources.¹⁶ Please refer the preceding discussion above concerning the existing environmental setting for cultural resources for more information.

CHECKLIST

| Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|--|---|--------------------------------|--|--|--------------------------|
| a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

- The CFS Project EIR did not specifically evaluate tribal cultural resources as a separate CEQA topic because at the time the CFS Project EIR was prepared the CEQA Guidelines had not been updated to require a separate evaluation of these resources. The CFS Project EIR did, however, evaluate potential impacts to cultural resources, including potential Native American resources, in connection with the implementation of the CFS Project, as more thoroughly described above. The CFS Project EIR identified the following mitigation measures to reduce potential impacts to cultural and paleontological resources to a less than significant level: *CR-1(a): Archaeological Site Avoidance*, *CR-1(b): Site Capping and Data Indexing*, *CR-1(c): Data Recovery Excavation*, *CR-1(d): Archaeological Resource Worker Environmental Awareness Program*, *CR-1(e): Archaeological Resource Construction Monitoring*, and *CR-1(f): Native American Construction Monitoring*. The implementation of these mitigation measures would ensure that potential impacts to tribal cultural resources would be minimized to a less than significant level.

IMPACTS OF THE PROPOSED MODIFICATION

a, b) Less than Significant Impact: The Proposed Modification would not result in a substantial adverse change in the significance of a tribal resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources. The Proposed Modification is not

¹⁶ For more information concerning the existing environmental setting, please refer to Section 4.5, Cultural Resources and Paleontological Resources, of the CFS Project Draft EIR.

anticipated to adversely affect tribal resources. As noted previously in **Section E, Cultural Resources**, mitigation measures have been identified to ensure that potential impacts would be reduced to a less than significant level. The implementation of existing mitigation measures would ensure that potential impacts to tribal cultural resources would also be less than significant. Moreover, most of the area of the Proposed Modification was disturbed in connection with construction of the CFS Project thereby further reducing potential impacts associated with the Proposed Modification. Additionally, Applied Earthworks did not identify any previously recorded resources within the footprint of the Proposed Modification. As a result, Applied Earthworks concluded that the Proposed Modification would not result in any additional impacts or effects beyond those previously identified in the CFS Project EIR. The implementation of existing mitigation measures would ensure that impacts to tribal cultural resources would be less than significant.

CONCLUSION

The CFS Project EIR previously evaluated potential impacts to cultural resources, including Native American resources, as part of the cultural resources section of the CFS Project EIR. The Proposed Modification would implement existing mitigation measures identified in the CFS Project EIR to ensure that impacts would remain less than significant. As a result, the Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR.

S. Utilities and Service Systems

EXISTING SETTING

CFS Project EIR includes a detailed description of the existing environmental setting for utilities and service systems.¹⁷ The CFS Project entailed the development of a 280-megawatt utility-scale solar facility and associated infrastructure in unincorporated Monterey County. At the time the County of Monterey prepared the CFS Project EIR, there was no existing wastewater disposal infrastructure and no wastewater service providers serving the CFS Project site. The minimal amount of wastewater generated by the CFS Project is disposed of by an onsite wastewater treatment system, and potable water for the Operation & Maintenance facility is provided by on-site wells. Solid waste generated as a result of the CFS Project is disposed of at Johnson Canyon Landfill in Monterey County, Paso Robles Landfill or Chicago Grade Landfill in San Luis Obispo County.

CHECKLIST

| | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|---|---|--------------------------------|--|--|-------------------------------------|
| Would the project: | | | | | |
| a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

- The CFS Project EIR did not identify any impacts that would cause significant environmental effects associated with the construction of new or expanded water, wastewater treatment, storm water drainage facilities, electric power, natural gas, or telecommunication facilities.
- The CFS Project EIR discussed the availability of water supplies in Section 4.9 Hydrology and Water Quality and determined that the CFS Project would have sufficient water supplies available from existing resources and no new or expanded entitlements would be needed. Impacts would be less than significant without mitigation.

¹⁷ Please refer to the CFS Project Draft EIR, Section 4.12.

- The CFS Project EIR did not identify any impacts associated with capacity of existing wastewater treatment facilities. The CFS Project would be served by an on-site septic system or alternative wastewater treatment system. No wastewater treatment providers would be affected by the project. There would be no impact.
- The CFS Project EIR discussed the generation of solid waste in Section 4.12 Public Services and Utilities and determined that solid waste generated during project decommissioning would be accommodated by landfills in existence at the time and would be disposed of in accordance with applicable laws and regulations. Therefore, impacts would be less than significant.

IMPACTS OF THE PROPOSED MODIFICATION

The Proposed Modification is located entirely within the existing 2,120-acre SDA, which was proposed to be improved with utility-scale solar infrastructure as part of the CFS Project. As a result, the CFS Project EIR evaluated the potential utilities and service systems resource related impacts associated with the construction of infrastructure within the area of the Proposed Modification. As described below, the Proposed Modification would not result in any additional environmental effects or increase the severity of a previously identified impact beyond those identified in the CFS Project EIR.

a, b, c) No Impact: The Proposed Modification consists of the construction and operation of a BESS and associated improvements. The Proposed Modification would modify the existing CFS Project to allow on-site energy storage. The Proposed Modification does not entail any new or expanded water or wastewater facilities. In addition, the Proposed Modification would not increase demand for water during operation. Temporary water use would occur during construction for dust suppression purposes but would be relatively minor in nature due to the limited nature of construction activities. As a result, the Proposed Modification is not anticipated to: 1) require or result in the construction of new or expanded water or wastewater treatment facilities or other related infrastructure, the construction of which could cause significant environmental effects; 2) have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years; or, 3) result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. Accordingly, the Proposed Modification would not result in any additional adverse environmental impacts or increase the severity of a previously identified significant impact beyond the levels identified in the CFS Project EIR.

d, e) Less than Significant Impact: Construction of the Proposed Modification would generate construction debris. Construction of the Proposed Modification is not, however, anticipated to generate a substantial amount of construction debris that would cause the Johnson Canyon Landfill (located in Monterey County), the Paso Proles Landfill, or the Chicago Grade Landfill (both located in San Luis Obispo County) to exceed their permitted capacity. Moreover, all construction debris would be disposed of in accordance with all applicable regulatory requirements related to construction waste diversion and general practices to reduce the amount of construction waste. As a result, the Proposed Modification would result in a less than significant impact in terms of solid waste generation consistent with the analysis in the CFS Project EIR.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR related to utilities and service systems.

T. Wildfire

EXISTING SETTING

At the time that the County of Monterey prepared the CFS Project EIR, the CEQA Guidelines had not been updated to require a separate analysis of potential wildfire hazards. Instead, the CFS Project EIR evaluated potential wildfire hazards as part of Section 4.8, Hazards and Hazardous Materials, and evaluated potential impacts to fire protection services in Section 4.12, Public Services. As identified in the CFS Project EIR, the CFS Project site, including the Proposed Modification, is located in a high fire hazard severity zone and is located within a State Responsibility Area (“SRA”) by the California Department of Forestry and Fire Protection (“Cal Fire”). The nearest Cal Fire substation is located in Parkfield, which is approximately seven miles northwest of the CFS Project site. This station would be the primary station responsible for responding to an emergency. For a detailed description of the existing environmental setting as it relates to potential wildfire hazards and impacts to fire protection services, please refer to the aforementioned sections for more information.

CHECKLIST

| If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|--|---|--------------------------------|--|--|-------------------------------------|
| a) Substantially impair an adopted emergency response plan or emergency evacuation plan? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

- The CFS Project EIR did not contain an analysis of potential wildfire hazards, because at the time the CFS Project EIR was prepared, the CEQA Guidelines had not been updated to require an evaluation of wildfire hazards. Although an analysis of potential wildfire impacts was not included as part of the CFS Project EIR as a separate topical CEQA section, the CFS Project EIR did evaluate potential impacts to existing fire protection services in connection with the implementation of the CFS Project in Section 4.8, Hazards and Hazardous Materials, of the CFS Project EIR.
- The CFS Project EIR identified the following mitigation measures to reduce the potential significant impacts associated with wildfires to a less than significant level: *PS-1(a): Construction Management Plan*, *PS-1(b): Emergency Response Training*, *PS-1(c): Fire Protection during Construction*, *HAZ-4(a): Final Fuel Management Plan*, and *HAZ-4(b): Emergency Access*.

IMPACTS OF THE PROPOSED MODIFICATION

a) No Impact: The Proposed Modification would not impair an adopted emergency response plan or emergency evacuation plan. The Proposed Modification consists of infrastructure improvements to an existing renewable energy facility located in southern Monterey County. Moreover, the Proposed Modification is located in an area that was previously considered suitable for renewable energy infrastructure in connection with the CFS Project but was never developed as part of the original project. The development of the Proposed Modification would not affect emergency access to the CFS Project site and would not otherwise impede access to the site. The location of the Proposed Modification was previously planned to be improved with utility-scale infrastructure and the Proposed Modification would not result in any changes related to emergency access. As a result, there would be no impact in connection with the Proposed Modification.

b, c) Less than Significant Impact with Mitigation: The Proposed Modification consists of the construction and operation of a BESS and related infrastructure as a component of the CFS Project. As described in **Section I. Hazards and Hazardous Materials**, the CFS Project is located in an area with a high fire hazard potential. As a result, the Proposed Modification could result in the exposure of project occupants to potential wildfire hazards consistent with the findings of the CFS Project EIR. Potential wildfire hazards associated with the Proposed Modification would be minimized through the compliance with existing regulatory requirements (e.g., Monterey County Code, Public Resources Code, OSHA), as well as active and passive fire protection measures included as part of the Proposed Modification and existing facility operations. These measures include implementing on-going fuel management measures, as well as maintaining on-site fire suppression equipment. Moreover, the Proposed Modification would also comply with applicable mitigation measures identified in the CFS Project EIR intended to reduce potential wildland fire hazards, including the following mitigation measures: *PS-1(a): Construction Management Plan*, *PS-1(b): Emergency Response Training*, *PS-1(c): Fire Protection during Construction*, *HAZ-4(a): Final Fuel Management Plan*, and *HAZ-4(b): Emergency Access*. In addition, the Proposed Modification also includes a preliminary fuel management plan which indicates that the area surrounding the proposed improvements would be managed during construction and operation consistent with existing operations. The implementation of existing fuel management requirements, as well as compliance with the mitigation measures identified above would ensure that potential impacts would be less than significant consistent with the findings of the CFS Project EIR.

d) Less than Significant Impact: The Proposed Modification site is located in an area that is relatively flat and not sloped. Therefore, the site is not generally susceptible to downslope or downstream flooding or landslides. For this reason, this impact is less than significant.

CONCLUSION

The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the CFS Project EIR. The Proposed Modification would implement the following mitigation measures, consistent with the CFS Project EIR, to ensure that potential impacts would be less than significant: *PS-1(a): Construction Management Plan*, *PS-1(b): Emergency Response Training*, *PS-1(c): Fire Protection during Construction*, *HAZ-4(a): Final Fuel Management Plan*, and *HAZ-4(b): Emergency Access*. The implementation of existing mitigation measures would ensure that potential impacts associated with the Proposed Modification would be consistent with the findings of the CFS Project EIR.

U. Mandatory Findings of Significance

CHECKLIST

| | No New Impact or Increase in Severity of a Previously Identified Impact | Significant Impact (unchanged) | Less than Significant with Mitigation Incorporated (unchanged) | Less than Significant Impact (unchanged) | No Impact |
|--|---|--------------------------------|--|--|--------------------------|
| a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

IMPACTS IDENTIFIED IN THE CFS PROJECT EIR

- The CFS Project EIR did not identify any impacts associated with the CFS Project that would have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.
- The CFS Project EIR evaluated the potential cumulative effects associated with the CFS Project. More specifically, the CFS Project EIR identified a number of renewable energy projects in the surrounding counties that would combine with the CFS Project to create cumulative impacts. The CFS Project EIR concluded that potential cumulative effects would not be cumulatively considerable based on the implementation of existing mitigation measures identified in the CFS Project EIR.
- The CFS Project EIR evaluated environmental effects that would cause substantial adverse effects on human beings associated with the implementation of the CFS Project. The CFS Project EIR shows that the environmental effects of the CFS Project would be less than significant and potential adverse effects on human beings would be reduced with the implementation of mitigation measures identified in the CFS Project EIR.

IMPACTS OF THE PROPOSED MODIFICATION

a, b, c) Less than Significant Impact: The Proposed Modification would not substantially degrade or reduce wildlife species or habitat or impact historic resources. The Proposed Modification is located within the existing 2,120-acre SDA, which the County of Monterey previously evaluated as part of the CFS Project

EIR. As a result, the Proposed Modification is not anticipated to result in any additional environmental effects or increase the severity of a significant impact beyond the levels identified in the CFS Project EIR. Moreover, the Proposed Modification would not result in any additional cumulative effects beyond those identified in the CFS Project EIR. The Proposed Modification would result in temporary construction-related effects – temporary construction-related effects would be limited in duration and would be addressed through the implementation of existing mitigation measures identified in the CFS Project EIR. In addition, construction and operation of the Proposed Modification would not result in adverse impacts on human beings, either directly or indirectly; potential impacts would be temporary in nature and mitigated through the implementation of mitigation measures (to the extent they are applicable) previously identified in the CFS Project EIR. The Proposed Modification would not result in any new significant impacts or cause an increase in severity of any significant impacts beyond those identified in the CFS Project EIR.

III. CONCLUSION

The Proposed Modification consists of the construction and operation of a BESS and related infrastructure improvements as part of the existing CFS Project. The Proposed Modification is located within the existing 2,120-acre SDA, which was previously approved for utility-scale solar infrastructure by the County of Monterey. As noted above, the actual footprint of the CFS Project was considerably less than what was analyzed in the CFS Project EIR - only 1,684 acres of the 2,120-acre SDA was developed as part of the CFS Project. As a result, the actual facility footprint is 436 acres less than previously analyzed. Similarly, the CFS Project EIR also evaluated the effects associated with the development of two (2) substations, each to be approximately six (6) acres in size. The actual footprint of each substation was also less than previously analyzed by the County of Monterey – the total footprint for both substations was less than two (2) acres combined. As a result, construction of the Proposed Modification would not exceed the CFS Project footprint analyzed by the County of Monterey. In fact, even with the addition of the Proposed Modification, the extent of development associated with the CFS Project would be less than what was analyzed in the CFS Project EIR. As discussed above, the Proposed Modification would not result in any additional adverse environmental effects or increase the severity of a previously identified significant impact.

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Attachment 5

Notice of Determination

Notice of Determination**- 1 -****To:**

Office of Planning and Research
 For U.S. Mail:
 P.O. Box 3044
 Sacramento, CA 95812-3044

Street Address:

1400 Tenth Street
 Sacramento, CA 95814

From:

California Department of Fish and Wildlife (CDFW)
 Central Region
 1234 East Shaw Avenue
 Fresno, California 93710
 Contact: Annee Ferranti
 Phone: (559) 243-4005, ext. 221

Lead Agency
 Monterey County
 168 West Alisal Street, 2nd Floor
 Salinas, California 93901
 Contact: John Ford
 Phone: (831) 755-5158

SUBJECT: Filing of Notice of Determination pursuant to Public Resources Code § 21108

State Clearinghouse Number: 2013041031

Project Title: California Flats Solar Project (California Endangered Species Act Incidental Take Permit (ITP) No. 2081-2015-027-04, Amendment No. 6, a major amendment.

Project Location: The Project is located north of the intersection of State Route (SR) 41 and SR 46 and northeast of Cholame Valley Road, approximately 25 miles northeast of the City of Paso Robles, in unincorporated Monterey and San Luis Obispo counties.

Project Description: The Project involves the construction, operation and maintenance, and decommissioning of a 280-megawatt solar power generating facility on approximately 2,367 acres of undeveloped grassland. The Project is composed of four main components: solar development areas, a transmission line corridor, an access road, and a utility corridor.

The Project is expected to result in incidental take of San Joaquin kit fox (SJKF) and California tiger salamander (CTS), which are designated as threatened species under the California Endangered Species Act (CESA). The ITP referenced above as issued by CDFW authorizes incidental take of the two species listed under CESA that may occur as a result of Project implementation, including temporary impacts to 214.57 acres and permanent impacts to 2,156.6 acres of SJKF and CTS habitat. Amendment No. 6 modifies the Project Description to include a Battery Energy Storage System (BESS) and transmission line from the BESS to the substation modification area; and allows for an increase of permanently disturbed acreage of 2.6 acres as a result of the BESS and modified substation construction, and a permanent impact of 0.001-acre (48 square feet) and a temporary impact of 1.57 acres (68,568 square feet) as a result of the construction of the transmission line from the BESS to the substation modification area.

This is to advise that CDFW, acting as [the lead agency / a responsible agency] approved the above-described project on 2/11/2021 and made the following determinations regarding the above described project:

1. The project [will / will not] have a significant effect on the environment (This determination is limited to effects within CDFW's permitting jurisdiction as a responsible agency).
 2. [An environmental impact report / A negative declaration] was prepared by the lead agency for the original project.
 3. Additional mitigation measures [were / were not] made a condition of CDFW's approval of the project.
 4. A mitigation reporting or monitoring plan [was / was not] adopted by CDFW for this project.
 5. A Statement of Overriding Considerations [was / was not] adopted by CDFW for this project.
 6. Findings [were / were not] made by CDFW pursuant to Public Resources Code § 21081(a).
 7. Compliance with the environmental filing fee requirement at Fish and Game Code § 711.4 (check one):
 - Payment is submitted with this notice.
 - A copy of a receipt showing prior payment was submitted to CDFW.
- Responsible Agency statement: The EIR prepared by the lead agency for the Project is available to the general public at the office location listed above for the lead agency. CDFW's administrative record of proceedings related to the incidental take permit is available to the public for review at CDFW's regional office.

Signature


FAB3F09FE08945A...

Date: 2/11/2021

Julie A. Vance, Regional Manager

Date Received for filing at OPR: _____

**PG&E Gas and Electric
Advice Submittal List
General Order 96-B, Section IV**

AT&T
Albion Power Company

Alta Power Group, LLC
Anderson & Poole

Atlas ReFuel
BART

Barkovich & Yap, Inc.
California Cotton Ginners & Growers Assn
California Energy Commission

California Hub for Energy Efficiency
Financing

California Alternative Energy and
Advanced Transportation Financing
Authority
California Public Utilities Commission
Calpine

Cameron-Daniel, P.C.
Casner, Steve
Cenergy Power
Center for Biological Diversity

Chevron Pipeline and Power
City of Palo Alto

City of San Jose
Clean Power Research
Coast Economic Consulting
Commercial Energy
Crossborder Energy
Crown Road Energy, LLC
Davis Wright Tremaine LLP
Day Carter Murphy

Dept of General Services
Don Pickett & Associates, Inc.
Douglass & Liddell

East Bay Community Energy Ellison
Schneider & Harris LLP Energy
Management Service
Engineers and Scientists of California

GenOn Energy, Inc.
Goodin, MacBride, Squeri, Schlotz &
Ritchie

Green Power Institute
Hanna & Morton
ICF

IGS Energy
International Power Technology

Intertie

Intestate Gas Services, Inc.
Kelly Group
Ken Bohn Consulting
Keyes & Fox LLP
Leviton Manufacturing Co., Inc.

Los Angeles County Integrated
Waste Management Task Force
MRW & Associates
Manatt Phelps Phillips
Marin Energy Authority
McKenzie & Associates

Modesto Irrigation District
NLine Energy, Inc.
NRG Solar

OnGrid Solar
Pacific Gas and Electric Company
Peninsula Clean Energy

Pioneer Community Energy

Public Advocates Office

Redwood Coast Energy Authority
Regulatory & Cogeneration Service, Inc.
SCD Energy Solutions
San Diego Gas & Electric Company

SPURR
San Francisco Water Power and Sewer
Semptra Utilities

Sierra Telephone Company, Inc.
Southern California Edison Company
Southern California Gas Company
Spark Energy

Sun Light & Power
Sunshine Design
Tecogen, Inc.
TerraVerde Renewable Partners
Tiger Natural Gas, Inc.

TransCanada
Utility Cost Management
Utility Power Solutions
Water and Energy Consulting Wellhead
Electric Company
Western Manufactured Housing
Communities Association (WMA)
Yep Energy